



NTP Historical Controls Report

By Route and Vehicle

Wistar Han RATS

November 2014

REPORT DESCRIPTION

This report shows the tumor rates of control group animals from selected studies. The studies used are shown on the Study Summary page.

This report is broken up into sections based on the route and vehicle used to deliver the chemical. The Table of Contents on Page 3 shows the different Route/Vehicle combinations. To see the data from all routes and vehicles combined into one set, you must run the "All Routes" report.

The individual tumor rates shown on the data pages of the report relate to the Study Summary page as follows: the tumor rates are shown in the same order as the Study Summary page, except that they are grouped horizontally in sets of three, with the males in the first set of three and the females in the second set. For example if the study summary showed the studies like this:

Male

M1
M2
M3
M4
M5

Female

F1
F2
F3
F4
F5

the data would be shown as:

Male			Female		
M1	M2	M3	F1	F2	F3
M4	M5		F4	F5	

Directly beneath the individual tumor rates on the data pages are the overall totals for that tumor/site combination. This includes the total tumors/animals, the overall mean (in parentheses), the mean of the study means, and the standard deviation of the study means.

Studies with no control animals of a particular gender are listed on the summary page with the Number of Animals shown as zero and the Start Date and Length of Study shown as "N/A". On the data pages there are blank spaces where tumor rates for these studies would normally be found, so that the male and female rates for the remaining studies can be easily compared.

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Contract/Lab: All Laboratories
Species: RATS
Strain: Wistar Han
Length of Study: CHRONIC

Toxicology Data Management System
Tumor Incidence for Selected Control Animal Groups
Route: GAVAGE
Vehicle: CORN OIL

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Study Summary

Laboratory Name	Study Number	Study Start Date	Length of Study in Days	Number of Animals Total and (#/Cage)	Number Surviving and (Mean Life Span)	Maximum Mean Weekly Body Weight	Chemical
Male							
Southern Research Institute	052020903	08/26/08	729	49(3)	36(671)	673.4	Pentabromodiphenyl oxide (technical) (DE 71)
Battelle Columbus Laboratory	052032003	07/25/07	727	50(3)	33(642)	662.9	Tetrabromobisphenol A
Female							
Southern Research Institute	052020903	08/26/08	732	50(5)	37(678)	389.6	Pentabromodiphenyl oxide (technical) (DE 71)
Battelle Columbus Laboratory	052032003	07/26/07	728	50(5)	34(678)	375.2	Tetrabromobisphenol A

Version: Nov2014
 Contract/Lab: All Laboratories
 Species: RATS
 Strain: Wistar Han
 Length of Study: CHRONIC

Toxicology Data Management System
 Tumor Incidence for Selected Control Animal Groups
 Route: GAVAGE
 Vehicle: CORN OIL

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		Male			Female		
#All Organs:							
Benign Tumors							
		33/49 (67%)	30/50 (60%)		37/50 (74%)	38/50 (76%)	
Overall Incidence	Total	63/99 (63.64%)	Mean 63.67%	SD 5.2%	Total	75/100 (75%)	Mean 75% SD 1.41%
.....							
#All Organs:							
Malignant Tumors							
		13/49 (27%)	8/50 (16%)		10/50 (20%)	10/50 (20%)	
Overall Incidence	Total	21/99 (21.21%)	Mean 21.27%	SD 7.45%	Total	20/100 (20%)	Mean 20% SD 0%
.....							
#All Organs:							
Malignant and Benign Tumors							
		36/49 (73%)	34/50 (68%)		40/50 (80%)	40/50 (80%)	
Overall Incidence	Total	70/99 (70.71%)	Mean 70.73%	SD 3.87%	Total	80/100 (80%)	Mean 80% SD 0%
.....							
#All Organs:							
Hemangioma							
		1/49 (2%)	1/50 (2%)		0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	2/99 (2.02%)	Mean 2.02%	SD 0.03%	Total	0/100 (0%)	Mean 0% SD 0%
.....							
#All Organs:							
Hemangiosarcoma							
		8/49 (16%)	3/50 (6%)		2/50 (4%)	2/50 (4%)	
Overall Incidence	Total	11/99 (11.11%)	Mean 11.16%	SD 7.3%	Total	4/100 (4%)	Mean 4% SD 0%
.....							
#All Organs:							
Hemangiosarcoma or Hemangioma							
		9/49 (18%)	4/50 (8%)		2/50 (4%)	2/50 (4%)	
Overall Incidence	Total	13/99 (13.13%)	Mean 13.18%	SD 7.33%	Total	4/100 (4%)	Mean 4% SD 0%

*: Denominator is number of animals with tissues examined microscopically

#: Denominator is number of animals necropsied

Version: Nov2014
 Contract/Lab: All Laboratories
 Species: RATS
 Strain: Wistar Han
 Length of Study: CHRONIC

Toxicology Data Management System
 Tumor Incidence for Selected Control Animal Groups
 Route: GAVAGE
 Vehicle: CORN OIL

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	Male				Female			
#All Organs:								
Histiocytic Sarcoma								
		0/49 (0%)	0/50 (0%)		0/50 (0%)	0/50 (0%)		
Overall Incidence	Total	0/99 (0%)	Mean 0%	SD 0%	Total	0/100 (0%)	Mean 0%	SD 0%
.....								
#All Organs:								
Leukemia: Lymphocytic, Monocytic, Mononuclear, or Undifferentiated								
		1/49 (2%)	1/50 (2%)		0/50 (0%)	0/50 (0%)		
Overall Incidence	Total	2/99 (2.02%)	Mean 2.02%	SD 0.03%	Total	0/100 (0%)	Mean 0%	SD 0%
.....								
#All Organs:								
Malignant Lymphoma: Histiocytic, Lymphocytic, Mixed, NOS, or Undifferentiated Cell Type								
		0/49 (0%)	0/50 (0%)		0/50 (0%)	0/50 (0%)		
Overall Incidence	Total	0/99 (0%)	Mean 0%	SD 0%	Total	0/100 (0%)	Mean 0%	SD 0%
.....								
#All Organs:								
Mesothelioma: Benign, Malignant, NOS								
		0/49 (0%)	0/50 (0%)		0/50 (0%)	0/50 (0%)		
Overall Incidence	Total	0/99 (0%)	Mean 0%	SD 0%	Total	0/100 (0%)	Mean 0%	SD 0%
.....								
#All Organs:								
Mesothelioma: Malignant								
		0/49 (0%)	0/50 (0%)		0/50 (0%)	0/50 (0%)		
Overall Incidence	Total	0/99 (0%)	Mean 0%	SD 0%	Total	0/100 (0%)	Mean 0%	SD 0%
.....								
#All Organs:								
Osteoma								
		0/49 (0%)	0/50 (0%)		0/50 (0%)	0/50 (0%)		
Overall Incidence	Total	0/99 (0%)	Mean 0%	SD 0%	Total	0/100 (0%)	Mean 0%	SD 0%

*: Denominator is number of animals with tissues examined microscopically
 #: Denominator is number of animals necropsied

Version: Nov2014
 Contract/Lab: All Laboratories
 Species: RATS
 Strain: Wistar Han
 Length of Study: CHRONIC

Toxicology Data Management System
 Tumor Incidence for Selected Control Animal Groups
 Route: GAVAGE
 Vehicle: CORN OIL

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		Male				Female				
#All Organs:										
Osteosarcoma										
		0/49	(0%)	0/50	(0%)	1/50	(2%)	0/50	(0%)	
Overall Incidence	Total	0/99	(0%)	Mean 0%	SD 0%	Total	1/100	(1%)	Mean 1%	SD 1.41%
.....										
#All Organs:										
Osteosarcoma or Osteoma										
		0/49	(0%)	0/50	(0%)	1/50	(2%)	0/50	(0%)	
Overall Incidence	Total	0/99	(0%)	Mean 0%	SD 0%	Total	1/100	(1%)	Mean 1%	SD 1.41%
.....										
*Adrenal Cortex:										
Adenoma										
		0/49	(0%)	0/50	(0%)	1/50	(2%)	1/50	(2%)	
Overall Incidence	Total	0/99	(0%)	Mean 0%	SD 0%	Total	2/100	(2%)	Mean 2%	SD 0%
.....										
*Adrenal Cortex:										
Carcinoma										
		1/49	(2%)	0/50	(0%)	0/50	(0%)	1/50	(2%)	
Overall Incidence	Total	1/99	(1.01%)	Mean 1.02%	SD 1.44%	Total	1/100	(1%)	Mean 1%	SD 1.41%
.....										
*Adrenal Medulla:										
Pheochromocytoma Benign										
		0/49	(0%)	0/49	(0%)	1/50	(2%)	2/49	(4%)	
Overall Incidence	Total	0/98	(0%)	Mean 0%	SD 0%	Total	3/99	(3.03%)	Mean 3.04%	SD 1.47%
.....										
*Adrenal Medulla:										
Pheochromocytoma Complex										
		0/49	(0%)	0/49	(0%)	1/50	(2%)	0/49	(0%)	
Overall Incidence	Total	0/98	(0%)	Mean 0%	SD 0%	Total	1/99	(1.01%)	Mean 1%	SD 1.41%

*: Denominator is number of animals with tissues examined microscopically
 #: Denominator is number of animals necropsied

Version: Nov2014
 Contract/Lab: All Laboratories
 Species: RATS
 Strain: Wistar Han
 Length of Study: CHRONIC

Toxicology Data Management System
 Tumor Incidence for Selected Control Animal Groups
 Route: GAVAGE
 Vehicle: CORN OIL

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		Male				Female			
*Adrenal Medulla:									
Pheochromocytoma Malignant									
		1/49	(2%)	0/49	(0%)	0/50	(0%)	0/49	(0%)
Overall Incidence	Total	1/98	(1.02%)	Mean 1.02%	SD 1.44%	Total	0/99	(0%)	Mean 0%
									SD 0%
*Adrenal Medulla:									
Pheochromocytoma: Benign, Complex, Malignant, NOS									
		1/49	(2%)	0/49	(0%)	2/50	(4%)	2/49	(4%)
Overall Incidence	Total	1/98	(1.02%)	Mean 1.02%	SD 1.44%	Total	4/99	(4.04%)	Mean 4.04%
									SD 0.06%
#Blood Vessel:									
Hemangiosarcoma									
		0/49	(0%)	1/50	(2%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	1/99	(1.01%)	Mean 1%	SD 1.41%	Total	0/100	(0%)	Mean 0%
									SD 0%
*Bone Marrow:									
Hemangiosarcoma									
		0/49	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	0/99	(0%)	Mean 0%	SD 0%	Total	0/100	(0%)	Mean 0%
									SD 0%
#Bone:									
Osteoma									
		0/49	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	0/99	(0%)	Mean 0%	SD 0%	Total	0/100	(0%)	Mean 0%
									SD 0%
#Bone:									
Osteosarcoma									
		0/49	(0%)	0/50	(0%)	1/50	(2%)	0/50	(0%)
Overall Incidence	Total	0/99	(0%)	Mean 0%	SD 0%	Total	1/100	(1%)	Mean 1%
									SD 1.41%

*: Denominator is number of animals with tissues examined microscopically
 #: Denominator is number of animals necropsied

Version: Nov2014
 Contract/Lab: All Laboratories
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Toxicology Data Management System
 Tumor Incidence for Selected Control Animal Groups
 Route: GAVAGE
 Vehicle: CORN OIL

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		Male				Female			
#Bone:									
Osteosarcoma or Osteoma									
		0/49	(0%)	0/50	(0%)	1/50	(2%)	0/50	(0%)
Overall Incidence	Total	0/99	(0%)	Mean 0%	SD 0%	Total	1/100	(1%)	Mean 1% SD 1.41%
.....									
#Bone:									
Sarcoma									
		0/49	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	0/99	(0%)	Mean 0%	SD 0%	Total	0/100	(0%)	Mean 0% SD 0%
.....									
*Brain:									
Glioma									
		0/49	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	0/99	(0%)	Mean 0%	SD 0%	Total	0/100	(0%)	Mean 0% SD 0%
.....									
*Brain:									
Glioma Malignant									
		1/49	(2%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	1/99	(1.01%)	Mean 1.02%	SD 1.44%	Total	0/100	(0%)	Mean 0% SD 0%
.....									
*Brain:									
Granular Cell Tumor Benign									
		1/49	(2%)	1/50	(2%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	2/99	(2.02%)	Mean 2.02%	SD 0.03%	Total	0/100	(0%)	Mean 0% SD 0%
.....									
*Brain:									
Granular Cell Tumor Malignant									
		0/49	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	0/99	(0%)	Mean 0%	SD 0%	Total	0/100	(0%)	Mean 0% SD 0%

*: Denominator is number of animals with tissues examined microscopically
 #: Denominator is number of animals necropsied

Version: Nov2014
 Contract/Lab: All Laboratories
 Species: RATS
 Strain: Wistar Han
 Length of Study: CHRONIC

Toxicology Data Management System
 Tumor Incidence for Selected Control Animal Groups
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		Male				Female			
*Brain:									
Meningioma Malignant									
		0/49	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	0/99	(0%)	Mean 0%	SD 0%	Total	0/100	(0%)	Mean 0%
									SD 0%
.....									
*Brain:									
Meningioma: Benign, Malignant, NOS									
		0/49	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	0/99	(0%)	Mean 0%	SD 0%	Total	0/100	(0%)	Mean 0%
									SD 0%
.....									
*Brain:									
Oligodendroglioma, Glioma, or Astrocytoma									
		1/49	(2%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	1/99	(1.01%)	Mean 1.02%	SD 1.44%	Total	0/100	(0%)	Mean 0%
									SD 0%
.....									
*Clitoral/Preputial Gland:									
Carcinoma									
		1/49	(2%)	0/50	(0%)	0/49	(0%)	0/50	(0%)
Overall Incidence	Total	1/99	(1.01%)	Mean 1.02%	SD 1.44%	Total	0/99	(0%)	Mean 0%
									SD 0%
.....									
*Clitoral/Preputial Gland:									
Carcinoma or Adenoma									
		1/49	(2%)	0/50	(0%)	0/49	(0%)	0/50	(0%)
Overall Incidence	Total	1/99	(1.01%)	Mean 1.02%	SD 1.44%	Total	0/99	(0%)	Mean 0%
									SD 0%
.....									
*Heart:									
Schwannoma Benign									
		0/49	(0%)	0/50	(0%)	0/50	(0%)	1/50	(2%)
Overall Incidence	Total	0/99	(0%)	Mean 0%	SD 0%	Total	1/100	(1%)	Mean 1%
									SD 1.41%

*: Denominator is number of animals with tissues examined microscopically

#: Denominator is number of animals necropsied

Version: Nov2014
 Contract/Lab: All Laboratories
 Species: RATS
 Strain: Wistar Han
 Length of Study: CHRONIC

Toxicology Data Management System
 Tumor Incidence for Selected Control Animal Groups
 Route: GAVAGE
 Vehicle: CORN OIL

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		Male				Female			
*Heart:									
Schwannoma NOS									
		0/49	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	0/99	(0%)	Mean 0%	SD 0%	Total	0/100	(0%)	Mean 0%
									SD 0%

#Intestine Small: Duodenum:									
Fibroma									
		1/49	(2%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	1/99	(1.01%)	Mean 1.02%	SD 1.44%	Total	0/100	(0%)	Mean 0%
									SD 0%

#Intestine Small: Duodenum:									
Leiomyosarcoma									
		0/49	(0%)	0/50	(0%)	0/50	(0%)	1/50	(2%)
Overall Incidence	Total	0/99	(0%)	Mean 0%	SD 0%	Total	1/100	(1%)	Mean 1%
									SD 1.41%

#Intestine Small: Jejunum:									
Leiomyoma									
		0/49	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	0/99	(0%)	Mean 0%	SD 0%	Total	0/100	(0%)	Mean 0%
									SD 0%

#Intestine Small: Jejunum:									
Leiomyosarcoma									
		0/49	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	0/99	(0%)	Mean 0%	SD 0%	Total	0/100	(0%)	Mean 0%
									SD 0%

#Intestine Small: Site Unspecified:									
Fibroma									
		1/49	(2%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	1/99	(1.01%)	Mean 1.02%	SD 1.44%	Total	0/100	(0%)	Mean 0%
									SD 0%

*: Denominator is number of animals with tissues examined microscopically

#: Denominator is number of animals necropsied

Version: Nov2014
 Contract/Lab: All Laboratories
 Species: RATS
 Strain: Wistar Han
 Length of Study: CHRONIC

Toxicology Data Management System
 Tumor Incidence for Selected Control Animal Groups
 Route: GAVAGE
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		Male				Female			
#Intestine Small: Site Unspecified:									
Leiomyoma									
		0/49	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	0/99	(0%)	Mean 0%	SD 0%	Total	0/100	(0%)	Mean 0%
									SD 0%

#Intestine Small: Site Unspecified:									
Leiomyosarcoma									
		0/49	(0%)	0/50	(0%)	0/50	(0%)	1/50	(2%)
Overall Incidence	Total	0/99	(0%)	Mean 0%	SD 0%	Total	1/100	(1%)	Mean 1%
									SD 1.41%

*Islets, Pancreatic:									
Adenoma									
		4/49	(8%)	1/50	(2%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	5/99	(5.05%)	Mean 5.08%	SD 4.36%	Total	0/100	(0%)	Mean 0%
									SD 0%

*Islets, Pancreatic:									
Carcinoma									
		2/49	(4%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	2/99	(2.02%)	Mean 2.04%	SD 2.89%	Total	0/100	(0%)	Mean 0%
									SD 0%

*Islets, Pancreatic:									
Carcinoma or Adenoma									
		6/49	(12%)	1/50	(2%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	7/99	(7.07%)	Mean 7.12%	SD 7.24%	Total	0/100	(0%)	Mean 0%
									SD 0%

*Kidney: Pelvis and Transitional Epithelium:									
Papilloma									
		0/49	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	0/99	(0%)	Mean 0%	SD 0%	Total	0/100	(0%)	Mean 0%
									SD 0%

*: Denominator is number of animals with tissues examined microscopically

#: Denominator is number of animals necropsied

Version: Nov2014
 Contract/Lab: All Laboratories
 Species: RATS
 Strain: Wistar Han
 Length of Study: CHRONIC

Toxicology Data Management System
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		Male				Female			
*Kidney: Renal Tubule: Adenoma									
		0/49	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	0/99	(0%)	Mean 0%	SD 0%	Total	0/100	(0%)	Mean 0% SD 0%
.....									
*Kidney: Renal Tubule: Carcinoma									
		0/49	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	0/99	(0%)	Mean 0%	SD 0%	Total	0/100	(0%)	Mean 0% SD 0%
.....									
*Kidney: Renal Tubule: Carcinoma or Adenoma									
		0/49	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	0/99	(0%)	Mean 0%	SD 0%	Total	0/100	(0%)	Mean 0% SD 0%
.....									
*Kidney: Renal Tubule: Lipoma									
		0/49	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	0/99	(0%)	Mean 0%	SD 0%	Total	0/100	(0%)	Mean 0% SD 0%
.....									
*Kidney: Renal Tubule: Liposarcoma									
		0/49	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	0/99	(0%)	Mean 0%	SD 0%	Total	0/100	(0%)	Mean 0% SD 0%
.....									
*Liver: Hepatocellular Adenoma									
		3/49	(6%)	0/50	(0%)	3/50	(6%)	1/50	(2%)
Overall Incidence	Total	3/99	(3.03%)	Mean 3.06%	SD 4.33%	Total	4/100	(4%)	Mean 4% SD 2.83%

*: Denominator is number of animals with tissues examined microscopically

#: Denominator is number of animals necropsied

Version: Nov2014
 Contract/Lab: All Laboratories
 Species: RATS
 Strain: Wistar Han
 Length of Study: CHRONIC

Toxicology Data Management System
 Tumor Incidence for Selected Control Animal Groups
 Route: GAVAGE
 Vehicle: CORN OIL

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	Male				Female			
*Liver:								
Hepatocellular Carcinoma or Hepatocellular Adenoma								
		3/49 (6%)	0/50 (0%)		3/50 (6%)	1/50 (2%)		
Overall Incidence	Total	3/99 (3.03%)	Mean 3.06%	SD 4.33%	Total	4/100 (4%)	Mean 4%	SD 2.83%
.....								
*Liver:								
Hepatocellular Carcinoma, Hepatocellular Adenoma, or Hepatoblastoma								
		3/49 (6%)	0/50 (0%)		3/50 (6%)	1/50 (2%)		
Overall Incidence	Total	3/99 (3.03%)	Mean 3.06%	SD 4.33%	Total	4/100 (4%)	Mean 4%	SD 2.83%
.....								
*Lung:								
Alveolar/Bronchiolar Adenoma								
		0/49 (0%)	0/50 (0%)		0/50 (0%)	0/50 (0%)		
Overall Incidence	Total	0/99 (0%)	Mean 0%	SD 0%	Total	0/100 (0%)	Mean 0%	SD 0%
.....								
*Lung:								
Alveolar/Bronchiolar Carcinoma or Alveolar/Bronchiolar Adenoma								
		0/49 (0%)	0/50 (0%)		0/50 (0%)	0/50 (0%)		
Overall Incidence	Total	0/99 (0%)	Mean 0%	SD 0%	Total	0/100 (0%)	Mean 0%	SD 0%
.....								
#Lymph Node:								
Hemangioma								
		0/49 (0%)	0/50 (0%)		0/50 (0%)	0/50 (0%)		
Overall Incidence	Total	0/99 (0%)	Mean 0%	SD 0%	Total	0/100 (0%)	Mean 0%	SD 0%
.....								
#Lymph Node, Mesenteric:								
Hemangioma								
		1/49 (2%)	1/50 (2%)		0/50 (0%)	0/50 (0%)		
Overall Incidence	Total	2/99 (2.02%)	Mean 2.02%	SD 0.03%	Total	0/100 (0%)	Mean 0%	SD 0%

*: Denominator is number of animals with tissues examined microscopically

#: Denominator is number of animals necropsied

Version: Nov2014
 Contract/Lab: All Laboratories
 Species: RATS
 Strain: Wistar Han
 Length of Study: CHRONIC

Toxicology Data Management System
 Tumor Incidence for Selected Control Animal Groups
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		Male			Female			
#Lymph Node, Mesenteric: Hemangiosarcoma								
Overall Incidence	Total	7/49 (14%) 8/99 (8.08%)	1/50 (2%) Mean 8.14%	SD 8.69%	Total	2/50 (4%) 3/100 (3%)	1/50 (2%) Mean 3%	SD 1.41%
.....								
#Mammary Gland: Adenoma								
Overall Incidence	Total	0/49 (0%) 0/99 (0%)	0/50 (0%) Mean 0%	SD 0%	Total	0/50 (0%) 4/100 (4%)	4/50 (8%) Mean 4%	SD 5.66%
.....								
#Mammary Gland: Carcinoma								
Overall Incidence	Total	0/49 (0%) 0/99 (0%)	0/50 (0%) Mean 0%	SD 0%	Total	1/50 (2%) 2/100 (2%)	1/50 (2%) Mean 2%	SD 0%
.....								
#Mammary Gland: Carcinoma or Adenoma								
Overall Incidence	Total	0/49 (0%) 0/99 (0%)	0/50 (0%) Mean 0%	SD 0%	Total	1/50 (2%) 5/100 (5%)	4/50 (8%) Mean 5%	SD 4.24%
.....								
#Mammary Gland: Fibroadenoma								
Overall Incidence	Total	0/49 (0%) 1/99 (1.01%)	1/50 (2%) Mean 1%	SD 1.41%	Total	9/50 (18%) 17/100 (17%)	8/50 (16%) Mean 17%	SD 1.41%
.....								
#Mammary Gland: Fibroma, Fibroadenoma or Adenoma								
Overall Incidence	Total	0/49 (0%) 1/99 (1.01%)	1/50 (2%) Mean 1%	SD 1.41%	Total	9/50 (18%) 21/100 (21%)	12/50 (24%) Mean 21%	SD 4.24%

*: Denominator is number of animals with tissues examined microscopically

#: Denominator is number of animals necropsied

Version: Nov2014
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Toxicology Data Management System
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	Male				Female			
#Mammary Gland:								
Fibroma, Fibroadenoma, Carcinoma, or Adenoma								
		0/49 (0%)	1/50 (2%)		10/50 (20%)	12/50 (24%)		
Overall Incidence	Total	1/99 (1.01%)	Mean 1%	SD 1.41%	Total	22/100 (22%)	Mean 22%	SD 2.83%
.....								
#Mesentery:								
Hemangiosarcoma								
		0/49 (0%)	0/50 (0%)		0/50 (0%)	0/50 (0%)		
Overall Incidence	Total	0/99 (0%)	Mean 0%	SD 0%	Total	0/100 (0%)	Mean 0%	SD 0%
.....								
#Mesentery:								
Lipoma								
		1/49 (2%)	0/50 (0%)		0/50 (0%)	0/50 (0%)		
Overall Incidence	Total	1/99 (1.01%)	Mean 1.02%	SD 1.44%	Total	0/100 (0%)	Mean 0%	SD 0%
.....								
#Mesentery:								
Schwannoma Malignant								
		0/49 (0%)	0/50 (0%)		0/50 (0%)	0/50 (0%)		
Overall Incidence	Total	0/99 (0%)	Mean 0%	SD 0%	Total	0/100 (0%)	Mean 0%	SD 0%
.....								
*Nose:								
Chondroma								
		0/49 (0%)	0/50 (0%)		1/50 (2%)	0/50 (0%)		
Overall Incidence	Total	0/99 (0%)	Mean 0%	SD 0%	Total	1/100 (1%)	Mean 1%	SD 1.41%
.....								
*Nose:								
Olfactory Neuroblastoma								
		0/49 (0%)	0/50 (0%)		0/50 (0%)	1/50 (2%)		
Overall Incidence	Total	0/99 (0%)	Mean 0%	SD 0%	Total	1/100 (1%)	Mean 1%	SD 1.41%

*: Denominator is number of animals with tissues examined microscopically

#: Denominator is number of animals necropsied

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Toxicology Data Management System
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	Male				Female			
#Oral Cavity (Oral Mucosa, Tongue, Pharynx, Tooth, Gingiva): Squamous Cell Carcinoma								
		0/49 (0%)	0/50 (0%)			0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	0/99 (0%)	Mean 0%	SD 0%	Total	0/100 (0%)	Mean 0%	SD 0%
.....								
#Oral Cavity (Oral Mucosa, Tongue, Pharynx, Tooth, Gingiva): Squamous Cell Carcinoma, Papilloma Squamous, or Papilloma								
		0/49 (0%)	0/50 (0%)			0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	0/99 (0%)	Mean 0%	SD 0%	Total	0/100 (0%)	Mean 0%	SD 0%
.....								
#Oral Mucosa: Squamous Cell Carcinoma								
		0/49 (0%)	0/50 (0%)			0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	0/99 (0%)	Mean 0%	SD 0%	Total	0/100 (0%)	Mean 0%	SD 0%
.....								
*Ovary: Adenoma								
						0/50 (0%)	0/50 (0%)	
Overall Incidence					Total	0/100 (0%)	Mean 0%	SD 0%
.....								
*Ovary: Cystadenoma								
						0/50 (0%)	0/50 (0%)	
Overall Incidence					Total	0/100 (0%)	Mean 0%	SD 0%
.....								
*Ovary: Granulosa Cell Tumor Benign								
						1/50 (2%)	0/50 (0%)	
Overall Incidence					Total	1/100 (1%)	Mean 1%	SD 1.41%

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#: Denominator is number of animals necropsied

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					Male						Female
*Ovary:											
Granulosa Cell Tumor Malignant											
						1/50	(2%)		1/50	(2%)	
Overall Incidence					Total	2/100	(2%)		Mean 2%		SD 0%
.....											
*Ovary:											
Granulosa Cell Tumor: Benign, Malignant, NOS											
						2/50	(4%)		1/50	(2%)	
Overall Incidence					Total	3/100	(3%)		Mean 3%		SD 1.41%
.....											
*Ovary:											
Sex Cord Stromal Tumor, Benign											
						0/50	(0%)		2/50	(4%)	
Overall Incidence					Total	2/100	(2%)		Mean 2%		SD 2.83%
.....											
*Ovary:											
Tubulostromal Adenoma											
						0/50	(0%)		0/50	(0%)	
Overall Incidence					Total	0/100	(0%)		Mean 0%		SD 0%
.....											
*Pancreas:											
Adenoma											
						1/46	(2%)		1/50	(2%)	
Overall Incidence					Total	2/96	(2.08%)		Mean 2.09%		SD 0.12%
						0/50	(0%)		0/50	(0%)	
Overall Incidence					Total	0/100	(0%)		Mean 0%		SD 0%
.....											
*Pancreas:											
Carcinoma or Adenoma											
						1/46	(2%)		1/50	(2%)	
Overall Incidence					Total	2/96	(2.08%)		Mean 2.09%		SD 0.12%
						0/50	(0%)		0/50	(0%)	
Overall Incidence					Total	0/100	(0%)		Mean 0%		SD 0%

*: Denominator is number of animals with tissues examined microscopically
 #: Denominator is number of animals necropsied

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		Male			Female			
*Parathyroid Gland:								
Adenoma								
		2/47 (4%)	0/45 (0%)		1/49 (2%)	0/48 (0%)		
Overall Incidence	Total	2/92 (2.17%)	Mean 2.13%	SD 3.01%	Total	1/97 (1.03%)	Mean 1.02%	SD 1.44%
.....								
*Pituitary Gland: Pars Distalis or Unspecified Site:								
Adenoma								
		19/49 (39%)	21/50 (42%)		23/50 (46%)	21/50 (42%)		
Overall Incidence	Total	40/99 (40.4%)	Mean 40.39%	SD 2.28%	Total	44/100 (44%)	Mean 44%	SD 2.83%
.....								
*Pituitary Gland: Pars Distalis or Unspecified Site:								
Carcinoma								
		0/49 (0%)	0/50 (0%)		0/50 (0%)	0/50 (0%)		
Overall Incidence	Total	0/99 (0%)	Mean 0%	SD 0%	Total	0/100 (0%)	Mean 0%	SD 0%
.....								
*Pituitary Gland: Pars Distalis or Unspecified Site:								
Carcinoma or Adenoma								
		19/49 (39%)	21/50 (42%)		23/50 (46%)	21/50 (42%)		
Overall Incidence	Total	40/99 (40.4%)	Mean 40.39%	SD 2.28%	Total	44/100 (44%)	Mean 44%	SD 2.83%
.....								
*Pituitary Gland: Pars Intermedia:								
Adenoma								
		0/49 (0%)	2/50 (4%)		1/50 (2%)	4/50 (8%)		
Overall Incidence	Total	2/99 (2.02%)	Mean 2%	SD 2.83%	Total	5/100 (5%)	Mean 5%	SD 4.24%
.....								
*Pituitary Gland: Pars Intermedia:								
Carcinoma or Adenoma								
		0/49 (0%)	2/50 (4%)		1/50 (2%)	4/50 (8%)		
Overall Incidence	Total	2/99 (2.02%)	Mean 2%	SD 2.83%	Total	5/100 (5%)	Mean 5%	SD 4.24%

*: Denominator is number of animals with tissues examined microscopically
 #: Denominator is number of animals necropsied

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		Male				Female			
*Prostate:									
Adenoma									
		0/49	(0%)	0/50	(0%)				
Overall Incidence	Total	0/99	(0%)	Mean 0%	SD 0%				
.....									
*Prostate:									
Carcinoma or Adenoma									
		0/49	(0%)	0/50	(0%)				
Overall Incidence	Total	0/99	(0%)	Mean 0%	SD 0%				
.....									
*Salivary Glands:									
Adenoma									
		1/46	(2%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	1/96	(1.04%)	Mean 1.09%	SD 1.54%	Total 0/100	(0%)	Mean 0%	SD 0%
.....									
*Salivary Glands:									
Carcinoma									
		0/46	(0%)	0/50	(0%)	1/50	(2%)	0/50	(0%)
Overall Incidence	Total	0/96	(0%)	Mean 0%	SD 0%	Total 1/100	(1%)	Mean 1%	SD 1.41%
.....									
*Salivary Glands:									
Carcinoma or Adenoma									
		1/46	(2%)	0/50	(0%)	1/50	(2%)	0/50	(0%)
Overall Incidence	Total	1/96	(1.04%)	Mean 1.09%	SD 1.54%	Total 1/100	(1%)	Mean 1%	SD 1.41%
.....									
*Salivary Glands:									
Myoepithelioma									
		0/46	(0%)	1/50	(2%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	1/96	(1.04%)	Mean 1%	SD 1.41%	Total 0/100	(0%)	Mean 0%	SD 0%

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		Male			Female		
*Salivary Glands:							
Schwannoma Malignant							
		0/46 (0%)	0/50 (0%)		0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	0/96 (0%)	Mean 0%	SD 0%	Total	0/100 (0%)	Mean 0% SD 0%
.....							
#Seminal Vesicle:							
Adenoma							
		0/49 (0%)	0/50 (0%)				
Overall Incidence	Total	0/99 (0%)	Mean 0%	SD 0%			
.....							
#Skeletal Muscle:							
Hemangiosarcoma							
		1/49 (2%)	0/50 (0%)		0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	1/99 (1.01%)	Mean 1.02%	SD 1.44%	Total	0/100 (0%)	Mean 0% SD 0%
.....							
#Skeletal Muscle:							
Sarcoma							
		0/49 (0%)	1/50 (2%)		0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	1/99 (1.01%)	Mean 1%	SD 1.41%	Total	0/100 (0%)	Mean 0% SD 0%
.....							
#Skin:							
Basal Cell Adenoma							
		1/49 (2%)	2/50 (4%)		1/50 (2%)	0/50 (0%)	
Overall Incidence	Total	3/99 (3.03%)	Mean 3.02%	SD 1.39%	Total	1/100 (1%)	Mean 1% SD 1.41%
.....							
#Skin:							
Basal Cell Adenoma or Basosquamous Tumor Benign							
		1/49 (2%)	2/50 (4%)		1/50 (2%)	0/50 (0%)	
Overall Incidence	Total	3/99 (3.03%)	Mean 3.02%	SD 1.39%	Total	1/100 (1%)	Mean 1% SD 1.41%

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	Male					Female								
#Skin:														
Basal Cell Adenoma, Basosquamous Tumor Benign, or Trichoepithelioma														
		1/49	(2%)	2/50	(4%)			1/50	(2%)	0/50	(0%)			
Overall Incidence	Total	3/99 (3.03%)		Mean	3.02%	SD	1.39%	Total	1/100 (1%)		Mean	1%	SD	1.41%
.....														
#Skin:														
Basal Cell Carcinoma														
		0/49	(0%)	1/50	(2%)			0/50	(0%)	0/50	(0%)			
Overall Incidence	Total	1/99 (1.01%)		Mean	1%	SD	1.41%	Total	0/100 (0%)		Mean	0%	SD	0%
.....														
#Skin:														
Basal Cell Carcinoma or Basosquamous Tumor (malignant or NOS)														
		0/49	(0%)	1/50	(2%)			0/50	(0%)	0/50	(0%)			
Overall Incidence	Total	1/99 (1.01%)		Mean	1%	SD	1.41%	Total	0/100 (0%)		Mean	0%	SD	0%
.....														
#Skin:														
Basal Cell Carcinoma, Basal Cell Adenoma, Basosquamous Tumor (benign, malignant or NOS), or Trichoepithelioma														
		1/49	(2%)	2/50	(4%)			1/50	(2%)	0/50	(0%)			
Overall Incidence	Total	3/99 (3.03%)		Mean	3.02%	SD	1.39%	Total	1/100 (1%)		Mean	1%	SD	1.41%
.....														
#Skin:														
Basal or Sq. Cell Carcinoma, Carcinoma, Basosq. Tumor (M or B), Basal Cell Adenoma, Adenoma, Papilloma, Sq Papilloma, Keratoacanthoma, Trichoepithelioma														
		3/49	(6%)	7/50	(14%)			1/50	(2%)	0/50	(0%)			
Overall Incidence	Total	10/99 (10.1%)		Mean	10.06%	SD	5.57%	Total	1/100 (1%)		Mean	1%	SD	1.41%
.....														
#Skin:														
Fibroma														
		1/49	(2%)	0/50	(0%)			0/50	(0%)	0/50	(0%)			
Overall Incidence	Total	1/99 (1.01%)		Mean	1.02%	SD	1.44%	Total	0/100 (0%)		Mean	0%	SD	0%

*: Denominator is number of animals with tissues examined microscopically

#: Denominator is number of animals necropsied

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	Male					Female				
#Skin:										
Fibroma, Fibrosarcoma, Sarcoma, Myxoma, Myxosarcoma, or Fibrous Histiocytoma										
		1/49 (2%)	0/50 (0%)			0/50 (0%)	0/50 (0%)			
Overall Incidence	Total	1/99 (1.01%)	Mean 1.02%	SD 1.44%	Total	0/100 (0%)	Mean 0%	SD 0%		
.....										
#Skin:										
Fibrosarcoma										
		0/49 (0%)	0/50 (0%)			0/50 (0%)	0/50 (0%)			
Overall Incidence	Total	0/99 (0%)	Mean 0%	SD 0%	Total	0/100 (0%)	Mean 0%	SD 0%		
.....										
#Skin:										
Fibrosarcoma, Sarcoma, Myxosarcoma, or Fibrous Histiocytoma										
		0/49 (0%)	0/50 (0%)			0/50 (0%)	0/50 (0%)			
Overall Incidence	Total	0/99 (0%)	Mean 0%	SD 0%	Total	0/100 (0%)	Mean 0%	SD 0%		
.....										
#Skin:										
Hamartoma										
		0/49 (0%)	0/50 (0%)			0/50 (0%)	0/50 (0%)			
Overall Incidence	Total	0/99 (0%)	Mean 0%	SD 0%	Total	0/100 (0%)	Mean 0%	SD 0%		
.....										
#Skin:										
Hemangiosarcoma										
		0/49 (0%)	0/50 (0%)			0/50 (0%)	1/50 (2%)			
Overall Incidence	Total	0/99 (0%)	Mean 0%	SD 0%	Total	1/100 (1%)	Mean 1%	SD 1.41%		
.....										
#Skin:										
Keratoacanthoma										
		2/49 (4%)	4/50 (8%)			0/50 (0%)	0/50 (0%)			
Overall Incidence	Total	6/99 (6.06%)	Mean 6.04%	SD 2.77%	Total	0/100 (0%)	Mean 0%	SD 0%		

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		Male				Female			
#Skin:									
Lipoma									
		0/49	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	0/99	(0%)	Mean 0%	SD 0%	Total	0/100	(0%)	Mean 0% SD 0%
.....									
#Skin:									
Liposarcoma									
		0/49	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	0/99	(0%)	Mean 0%	SD 0%	Total	0/100	(0%)	Mean 0% SD 0%
.....									
#Skin:									
Neurofibrosarcoma or Schwannoma (malignant or NOS)									
		0/49	(0%)	2/50	(4%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	2/99	(2.02%)	Mean 2%	SD 2.83%	Total	0/100	(0%)	Mean 0% SD 0%
.....									
#Skin:									
Neurofibrosarcoma, Neurofibroma, or Schwannoma (benign, malignant or NOS)									
		0/49	(0%)	2/50	(4%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	2/99	(2.02%)	Mean 2%	SD 2.83%	Total	0/100	(0%)	Mean 0% SD 0%
.....									
#Skin:									
Schwannoma Malignant									
		0/49	(0%)	2/50	(4%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	2/99	(2.02%)	Mean 2%	SD 2.83%	Total	0/100	(0%)	Mean 0% SD 0%
.....									
#Skin:									
Squamous Cell Carcinoma									
		0/49	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	0/99	(0%)	Mean 0%	SD 0%	Total	0/100	(0%)	Mean 0% SD 0%

*: Denominator is number of animals with tissues examined microscopically
 #: Denominator is number of animals necropsied

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	Male					Female				
#Skin:										
Squamous Cell Carcinoma, Basal Cell Carcinoma, Basosquamous Tumor (malignant or NOS), or Carcinoma										
Overall Incidence	Total	0/49 (0%)	1/50 (2%)	Mean 1%	SD 1.41%	Total	0/50 (0%)	0/50 (0%)	Mean 0%	SD 0%
		1/99 (1.01%)					0/100 (0%)			
#Skin:										
Squamous Cell Papilloma										
Overall Incidence	Total	0/49 (0%)	1/50 (2%)	Mean 1%	SD 1.41%	Total	0/50 (0%)	0/50 (0%)	Mean 0%	SD 0%
		1/99 (1.01%)					0/100 (0%)			
#Skin:										
Squamous Cell Papilloma or Papilloma										
Overall Incidence	Total	0/49 (0%)	1/50 (2%)	Mean 1%	SD 1.41%	Total	0/50 (0%)	0/50 (0%)	Mean 0%	SD 0%
		1/99 (1.01%)					0/100 (0%)			
#Skin:										
Squamous Cell Papilloma, Papilloma, Squamous Cell Carcinoma or Keratoacanthoma										
Overall Incidence	Total	2/49 (4%)	5/50 (10%)	Mean 7.04%	SD 4.18%	Total	0/50 (0%)	0/50 (0%)	Mean 0%	SD 0%
		7/99 (7.07%)					0/100 (0%)			
#Skin:										
Squamous Cell Papilloma, Papilloma, or Keratoacanthoma										
Overall Incidence	Total	2/49 (4%)	5/50 (10%)	Mean 7.04%	SD 4.18%	Total	0/50 (0%)	0/50 (0%)	Mean 0%	SD 0%
		7/99 (7.07%)					0/100 (0%)			
#Skin: Sebaceous Gland:										
Adenoma										
Overall Incidence	Total	0/49 (0%)	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	0/50 (0%)	Mean 0%	SD 0%
		0/99 (0%)					0/100 (0%)			

*: Denominator is number of animals with tissues examined microscopically
 #: Denominator is number of animals necropsied

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		Male				Female			
#Skin, Sebaceous Gland:									
Carcinoma or Adenoma									
		0/49	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	0/99	(0%)	Mean 0%	SD 0%	Total	0/100	(0%)	Mean 0% SD 0%
.....									
*Spleen:									
Hemangiosarcoma									
		1/47	(2%)	1/50	(2%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	2/97	(2.06%)	Mean 2.06%	SD 0.09%	Total	0/100	(0%)	Mean 0% SD 0%
.....									
#Stomach, Forestomach:									
Fibrosarcoma									
		1/49	(2%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	1/99	(1.01%)	Mean 1.02%	SD 1.44%	Total	0/100	(0%)	Mean 0% SD 0%
.....									
#Stomach, Forestomach:									
Leiomyoma									
		0/49	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	0/99	(0%)	Mean 0%	SD 0%	Total	0/100	(0%)	Mean 0% SD 0%
.....									
#Stomach, Forestomach:									
Leiomyosarcoma									
		0/49	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	0/99	(0%)	Mean 0%	SD 0%	Total	0/100	(0%)	Mean 0% SD 0%
.....									
#Stomach, Forestomach:									
Sarcoma									
		0/49	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	0/99	(0%)	Mean 0%	SD 0%	Total	0/100	(0%)	Mean 0% SD 0%

*: Denominator is number of animals with tissues examined microscopically
 #: Denominator is number of animals necropsied

Version: Nov2014
 Contract/Lab: All Laboratories
 Species: RATS
 Strain: Wistar Han
 Length of Study: CHRONIC

Toxicology Data Management System
 Tumor Incidence for Selected Control Animal Groups
 Route: GAVAGE
 Vehicle: CORN OIL

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	Male				Female			
#Stomach, Forestomach:								
Squamous Cell Carcinoma								
		0/49 (0%)	0/50 (0%)		0/50 (0%)	0/50 (0%)		
Overall Incidence	Total	0/99 (0%)	Mean 0%	SD 0%	Total	0/100 (0%)	Mean 0%	SD 0%
.....								
#Stomach, Forestomach:								
Squamous Cell Carcinoma or Papilloma Squamous								
		1/49 (2%)	0/50 (0%)		0/50 (0%)	0/50 (0%)		
Overall Incidence	Total	1/99 (1.01%)	Mean 1.02%	SD 1.44%	Total	0/100 (0%)	Mean 0%	SD 0%
.....								
#Stomach, Forestomach:								
Squamous Cell Papilloma								
		1/49 (2%)	0/50 (0%)		0/50 (0%)	0/50 (0%)		
Overall Incidence	Total	1/99 (1.01%)	Mean 1.02%	SD 1.44%	Total	0/100 (0%)	Mean 0%	SD 0%
.....								
#Stomach, Glandular:								
Fibrosarcoma								
		1/49 (2%)	0/50 (0%)		0/50 (0%)	0/50 (0%)		
Overall Incidence	Total	1/99 (1.01%)	Mean 1.02%	SD 1.44%	Total	0/100 (0%)	Mean 0%	SD 0%
.....								
#Stomach, Glandular:								
Leiomyosarcoma								
		0/49 (0%)	0/50 (0%)		0/50 (0%)	1/50 (2%)		
Overall Incidence	Total	0/99 (0%)	Mean 0%	SD 0%	Total	1/100 (1%)	Mean 1%	SD 1.41%
.....								
#Stomach, Glandular:								
Sarcoma								
		0/49 (0%)	0/50 (0%)		0/50 (0%)	0/50 (0%)		
Overall Incidence	Total	0/99 (0%)	Mean 0%	SD 0%	Total	0/100 (0%)	Mean 0%	SD 0%

*: Denominator is number of animals with tissues examined microscopically

#: Denominator is number of animals necropsied

Version: Nov2014
 Contract/Lab: All Laboratories
 Species: RATS
 Strain: Wistar Han
 Length of Study: CHRONIC

Toxicology Data Management System
 Tumor Incidence for Selected Control Animal Groups
 Route: GAVAGE
 Vehicle: CORN OIL

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		Male				Female			
*Testes:									
Adenoma									
		2/49	(4%)	0/50	(0%)				
Overall Incidence	Total	2/99	(2.02%)	Mean 2.04%	SD 2.89%				
.....									
*Testes:									
Hemangiosarcoma									
		0/49	(0%)	0/50	(0%)				
Overall Incidence	Total	0/99	(0%)	Mean 0%	SD 0%				
.....									
*Thymus:									
Sarcoma									
		0/45	(0%)	0/49	(0%)	0/50	(0%)	1/50	(2%)
Overall Incidence	Total	0/94	(0%)	Mean 0%	SD 0%	Total 1/100	(1%)	Mean 1%	SD 1.41%
.....									
*Thymus:									
Thymoma Benign									
		0/45	(0%)	1/49	(2%)	0/50	(0%)	1/50	(2%)
Overall Incidence	Total	1/94	(1.06%)	Mean 1.02%	SD 1.44%	Total 1/100	(1%)	Mean 1%	SD 1.41%
.....									
*Thymus:									
Thymoma: Benign, Malignant, NOS									
		0/45	(0%)	1/49	(2%)	0/50	(0%)	1/50	(2%)
Overall Incidence	Total	1/94	(1.06%)	Mean 1.02%	SD 1.44%	Total 1/100	(1%)	Mean 1%	SD 1.41%
.....									
*Thyroid Gland:									
Carcinoma									
		0/45	(0%)	0/50	(0%)	0/45	(0%)	0/50	(0%)
Overall Incidence	Total	0/95	(0%)	Mean 0%	SD 0%	Total 0/95	(0%)	Mean 0%	SD 0%
.....									

*: Denominator is number of animals with tissues examined microscopically

#: Denominator is number of animals necropsied

Version: Nov2014
 Contract/Lab: All Laboratories
 Species: RATS
 Strain: Wistar Han
 Length of Study: CHRONIC

Toxicology Data Management System
 Tumor Incidence for Selected Control Animal Groups
 Route: GAVAGE
 Vehicle: CORN OIL

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		Male			Female		
*Thyroid Gland: C-Cell: Adenoma							
		11/45 (24%)	5/50 (10%)		7/45 (16%)	7/50 (14%)	
Overall Incidence	Total	16/95 (16.84%)	Mean 17.22%	SD 10.21%	Total	14/95 (14.74%)	Mean 14.78% SD 1.1%
.....							
*Thyroid Gland: C-Cell: Carcinoma							
		0/45 (0%)	0/50 (0%)		0/45 (0%)	0/50 (0%)	
Overall Incidence	Total	0/95 (0%)	Mean 0%	SD 0%	Total	0/95 (0%)	Mean 0% SD 0%
.....							
*Thyroid Gland: C-Cell: Carcinoma or Adenoma							
		11/45 (24%)	5/50 (10%)		7/45 (16%)	7/50 (14%)	
Overall Incidence	Total	16/95 (16.84%)	Mean 17.22%	SD 10.21%	Total	14/95 (14.74%)	Mean 14.78% SD 1.1%
.....							
*Thyroid Gland: Follicular Cell: Adenoma							
		1/45 (2%)	3/50 (6%)		1/45 (2%)	3/50 (6%)	
Overall Incidence	Total	4/95 (4.21%)	Mean 4.11%	SD 2.67%	Total	4/95 (4.21%)	Mean 4.11% SD 2.67%
.....							
*Thyroid Gland: Follicular Cell: Carcinoma							
		0/45 (0%)	0/50 (0%)		0/45 (0%)	0/50 (0%)	
Overall Incidence	Total	0/95 (0%)	Mean 0%	SD 0%	Total	0/95 (0%)	Mean 0% SD 0%
.....							
*Thyroid Gland: Follicular Cell: Carcinoma or Adenoma							
		1/45 (2%)	3/50 (6%)		1/45 (2%)	3/50 (6%)	
Overall Incidence	Total	4/95 (4.21%)	Mean 4.11%	SD 2.67%	Total	4/95 (4.21%)	Mean 4.11% SD 2.67%

*: Denominator is number of animals with tissues examined microscopically

#: Denominator is number of animals necropsied

Version: Nov2014
 Contract/Lab: All Laboratories
 Species: RATS
 Strain: Wistar Han
 Length of Study: CHRONIC

Toxicology Data Management System
 Tumor Incidence for Selected Control Animal Groups
 Route: GAVAGE
 Vehicle: CORN OIL

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	Male					Female					
*Urinary Bladder: Carcinoma or Papilloma											
		0/49	(0%)	1/50	(2%)		0/50	(0%)	1/50	(2%)	
Overall Incidence	Total	1/99 (1.01%)		Mean	1%	SD	1.41%		Total	1/100 (1%)	
				Mean	1%	SD	1.41%				
.....											
*Urinary Bladder: Papilloma											
		0/49	(0%)	1/50	(2%)		0/50	(0%)	1/50	(2%)	
Overall Incidence	Total	1/99 (1.01%)		Mean	1%	SD	1.41%		Total	1/100 (1%)	
				Mean	1%	SD	1.41%				
.....											
#Uterus: Adenoma											
							1/50	(2%)	0/50	(0%)	
Overall Incidence	Total			Mean	1%	SD	1.41%		Total	1/100 (1%)	
				Mean	1%	SD	1.41%				
.....											
#Uterus: Carcinoma											
							1/50	(2%)	3/50	(6%)	
Overall Incidence	Total			Mean	4%	SD	2.83%		Total	4/100 (4%)	
				Mean	4%	SD	2.83%				
.....											
#Uterus: Granular Cell Tumor Benign											
							1/50	(2%)	0/50	(0%)	
Overall Incidence	Total			Mean	1%	SD	1.41%		Total	1/100 (1%)	
				Mean	1%	SD	1.41%				
.....											
#Uterus: Hemangiosarcoma											
							0/50	(0%)	0/50	(0%)	
Overall Incidence	Total			Mean	0%	SD	0%		Total	0/100 (0%)	
				Mean	0%	SD	0%				
.....											

*: Denominator is number of animals with tissues examined microscopically
 #: Denominator is number of animals necropsied

Version: Nov2014
 Contract/Lab: All Laboratories
 Species: RATS
 Strain: Wistar Han
 Length of Study: CHRONIC

Toxicology Data Management System
 Tumor Incidence for Selected Control Animal Groups
 Route: GAVAGE
 Vehicle: CORN OIL

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	Male	Female
#Uterus: Leiomyosarcoma		
Overall Incidence	Total 0/50 (0%) 0/100 (0%)	0/50 (0%) Mean 0% SD 0%
#Uterus: Malignant Mixed Mullerian Tumor		
Overall Incidence	Total 1/50 (2%) 1/100 (1%)	0/50 (0%) Mean 1% SD 1.41%
#Uterus: Polyp Stromal		
Overall Incidence	Total 3/50 (6%) 5/100 (5%)	2/50 (4%) Mean 5% SD 1.41%
#Uterus: Sarcoma Stromal		
Overall Incidence	Total 0/50 (0%) 0/100 (0%)	0/50 (0%) Mean 0% SD 0%
#Uterus: Sarcoma Stromal or Polyp Stromal		
Overall Incidence	Total 3/50 (6%) 5/100 (5%)	2/50 (4%) Mean 5% SD 1.41%
#Uterus: Schwannoma Malignant		
Overall Incidence	Total 1/50 (2%) 1/100 (1%)	0/50 (0%) Mean 1% SD 1.41%

*: Denominator is number of animals with tissues examined microscopically
 #: Denominator is number of animals necropsied

Version: Nov2014
 Contract/Lab: All Laboratories
 Species: RATS
 Strain: Wistar Han
 Length of Study: CHRONIC

Toxicology Data Management System
 Tumor Incidence for Selected Control Animal Groups
 Route: GAVAGE
 Vehicle: CORN OIL

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				Male					Female	
#Uterus:										
Squamous Cell Papilloma										
					0/50	(0%)		0/50	(0%)	
Overall Incidence				Total	0/100	(0%)		Mean 0%	SD 0%	
.....										
#Vagina:										
Fibrosarcoma										
					0/50	(0%)		0/50	(0%)	
Overall Incidence				Total	0/100	(0%)		Mean 0%	SD 0%	
.....										
#Vagina:										
Leiomyoma										
					0/50	(0%)		1/50	(2%)	
Overall Incidence				Total	1/100	(1%)		Mean 1%	SD 1.41%	
.....										
#Vagina:										
Polyp										
					0/50	(0%)		0/50	(0%)	
Overall Incidence				Total	0/100	(0%)		Mean 0%	SD 0%	
.....										
#Zymbal's Gland:										
Carcinoma										
				0/49	(0%)	0/50	(0%)			
Overall Incidence	Total	0/99	(0%)	Mean 0%	SD 0%	Total	0/50	(0%)	0/50	(0%)
							0/100	(0%)	Mean 0%	SD 0%
.....										
#Zymbal's Gland:										
Carcinoma or Adenoma										
				0/49	(0%)	0/50	(0%)			
Overall Incidence	Total	0/99	(0%)	Mean 0%	SD 0%	Total	0/50	(0%)	0/50	(0%)
							0/100	(0%)	Mean 0%	SD 0%
.....										

*: Denominator is number of animals with tissues examined microscopically

#: Denominator is number of animals necropsied

Version: Nov2014
Contract/Lab: All Laboratories
Species: RATS
Strain: Wistar Han
Length of Study: CHRONIC

Toxicology Data Management System
Tumor Incidence for Selected Control Animal Groups
Route: GAVAGE
Vehicle: WATER

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Report Date: 11/11/2014

Study Summary

Laboratory Name	Study Number	Study Start Date	Length of Study in Days	Number of Animals Total and (#/Cage)	Number Surviving and (Mean Life Span)	Maximum Mean Weekly Body Weight	Chemical
Male							
Battelle Columbus Laboratory	052020303	07/18/07	727	50(3)	35(687)	632.7	Green tea extract
Female							
Battelle Columbus Laboratory	052020303	07/19/07	729	50(5)	26(671)	369.7	Green tea extract

Version: Nov2014
 Contract/Lab: All Laboratories
 Species: RATS
 Strain: Wistar Han
 Length of Study: CHRONIC

Toxicology Data Management System
 Tumor Incidence for Selected Control Animal Groups
 Route: GAVAGE
 Vehicle: WATER

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 Report Date: 11/11/2014

		Male			Female		
#All Organs:							
Benign Tumors							
		26/50 (52%)			38/50 (76%)		
Overall Incidence	Total	26/50 (52%)	Mean 52%	SD 0%	Total	38/50 (76%)	Mean 76% SD 0%
.....							
#All Organs:							
Malignant Tumors							
		12/50 (24%)			16/50 (32%)		
Overall Incidence	Total	12/50 (24%)	Mean 24%	SD 0%	Total	16/50 (32%)	Mean 32% SD 0%
.....							
#All Organs:							
Malignant and Benign Tumors							
		36/50 (72%)			43/50 (86%)		
Overall Incidence	Total	36/50 (72%)	Mean 72%	SD 0%	Total	43/50 (86%)	Mean 86% SD 0%
.....							
#All Organs:							
Hemangioma							
		0/50 (0%)			0/50 (0%)		
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0% SD 0%
.....							
#All Organs:							
Hemangiosarcoma							
		0/50 (0%)			2/50 (4%)		
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	2/50 (4%)	Mean 4% SD 0%
.....							
#All Organs:							
Hemangiosarcoma or Hemangioma							
		0/50 (0%)			2/50 (4%)		
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	2/50 (4%)	Mean 4% SD 0%
.....							

*: Denominator is number of animals with tissues examined microscopically

#: Denominator is number of animals necropsied

Version: Nov2014
 Contract/Lab: All Laboratories
 Species: RATS
 Strain: Wistar Han
 Length of Study: CHRONIC

Toxicology Data Management System
 Tumor Incidence for Selected Control Animal Groups
 Route: GAVAGE
 Vehicle: WATER

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	Male				Female			
#All Organs:								
Histiocytic Sarcoma								
		0/50	(0%)			0/50	(0%)	
Overall Incidence	Total	0/50	(0%)	Mean 0%	SD 0%	Total	0/50	(0%)
.....								
#All Organs:								
Leukemia: Lymphocytic, Monocytic, Mononuclear, or Undifferentiated								
		0/50	(0%)			0/50	(0%)	
Overall Incidence	Total	0/50	(0%)	Mean 0%	SD 0%	Total	0/50	(0%)
.....								
#All Organs:								
Malignant Lymphoma: Histiocytic, Lymphocytic, Mixed, NOS, or Undifferentiated Cell Type								
		0/50	(0%)			1/50	(2%)	
Overall Incidence	Total	0/50	(0%)	Mean 0%	SD 0%	Total	1/50	(2%)
.....								
#All Organs:								
Mesothelioma: Benign, Malignant, NOS								
		2/50	(4%)			0/50	(0%)	
Overall Incidence	Total	2/50	(4%)	Mean 4%	SD 0%	Total	0/50	(0%)
.....								
#All Organs:								
Mesothelioma: Malignant								
		2/50	(4%)			0/50	(0%)	
Overall Incidence	Total	2/50	(4%)	Mean 4%	SD 0%	Total	0/50	(0%)
.....								
#All Organs:								
Osteoma								
		1/50	(2%)			0/50	(0%)	
Overall Incidence	Total	1/50	(2%)	Mean 2%	SD 0%	Total	0/50	(0%)

*: Denominator is number of animals with tissues examined microscopically
 #: Denominator is number of animals necropsied

Version: Nov2014
 Contract/Lab: All Laboratories
 Species: RATS
 Strain: Wistar Han
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Toxicology Data Management System
 Tumor Incidence for Selected Control Animal Groups
 Route: GAVAGE
 Vehicle: WATER

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	Male				Female			
#All Organs:								
Osteosarcoma								
		1/50	(2%)			0/50	(0%)	
Overall Incidence	Total	1/50	(2%)	Mean 2%	SD 0%	Total	0/50	(0%)
							Mean 0%	SD 0%
.....								
#All Organs:								
Osteosarcoma or Osteoma								
		2/50	(4%)			0/50	(0%)	
Overall Incidence	Total	2/50	(4%)	Mean 4%	SD 0%	Total	0/50	(0%)
							Mean 0%	SD 0%
.....								
*Adrenal Cortex:								
Adenoma								
		1/50	(2%)			0/50	(0%)	
Overall Incidence	Total	1/50	(2%)	Mean 2%	SD 0%	Total	0/50	(0%)
							Mean 0%	SD 0%
.....								
*Adrenal Cortex:								
Carcinoma								
		0/50	(0%)			0/50	(0%)	
Overall Incidence	Total	0/50	(0%)	Mean 0%	SD 0%	Total	0/50	(0%)
							Mean 0%	SD 0%
.....								
*Adrenal Medulla:								
Pheochromocytoma Benign								
		1/50	(2%)			1/50	(2%)	
Overall Incidence	Total	1/50	(2%)	Mean 2%	SD 0%	Total	1/50	(2%)
							Mean 2%	SD 0%
.....								
*Adrenal Medulla:								
Pheochromocytoma Complex								
		0/50	(0%)			0/50	(0%)	
Overall Incidence	Total	0/50	(0%)	Mean 0%	SD 0%	Total	0/50	(0%)
							Mean 0%	SD 0%
.....								

*: Denominator is number of animals with tissues examined microscopically

#: Denominator is number of animals necropsied

Version: Nov2014
 Contract/Lab: All Laboratories
 Species: RATS
 Strain: Wistar Han
 Length of Study: CHRONIC

Toxicology Data Management System
 Tumor Incidence for Selected Control Animal Groups
 Route: GAVAGE
 Vehicle: WATER

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		Male			Female		
*Adrenal Medulla:							
Pheochromocytoma Malignant							
		0/50 (0%)			0/50 (0%)		
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0% SD 0%
.....							
*Adrenal Medulla:							
Pheochromocytoma: Benign, Complex, Malignant, NOS							
		1/50 (2%)			1/50 (2%)		
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%	Total	1/50 (2%)	Mean 2% SD 0%
.....							
#Blood Vessel:							
Hemangiosarcoma							
		0/50 (0%)			0/50 (0%)		
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0% SD 0%
.....							
*Bone Marrow:							
Hemangiosarcoma							
		0/50 (0%)			0/50 (0%)		
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0% SD 0%
.....							
#Bone:							
Osteoma							
		1/50 (2%)			0/50 (0%)		
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0% SD 0%
.....							
#Bone:							
Osteosarcoma							
		1/50 (2%)			0/50 (0%)		
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0% SD 0%

*: Denominator is number of animals with tissues examined microscopically

#: Denominator is number of animals necropsied

Version: Nov2014
 Contract/Lab: All Laboratories
 Species: RATS
 Strain: Wistar Han
 Length of Study: CHRONIC

Toxicology Data Management System
 Tumor Incidence for Selected Control Animal Groups
 Route: GAVAGE
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		Male			Female		
#Bone:							
Osteosarcoma or Osteoma							
		2/50 (4%)			0/50 (0%)		
Overall Incidence	Total	2/50 (4%)	Mean 4%	SD 0%	Total	0/50 (0%)	Mean 0% SD 0%
.....							
#Bone:							
Sarcoma							
		1/50 (2%)			0/50 (0%)		
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0% SD 0%
.....							
*Brain:							
Glioma							
		0/50 (0%)			0/50 (0%)		
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0% SD 0%
.....							
*Brain:							
Glioma Malignant							
		1/50 (2%)			0/50 (0%)		
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0% SD 0%
.....							
*Brain:							
Granular Cell Tumor Benign							
		2/50 (4%)			0/50 (0%)		
Overall Incidence	Total	2/50 (4%)	Mean 4%	SD 0%	Total	0/50 (0%)	Mean 0% SD 0%
.....							
*Brain:							
Granular Cell Tumor Malignant							
		0/50 (0%)			0/50 (0%)		
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0% SD 0%
.....							

*: Denominator is number of animals with tissues examined microscopically
 #: Denominator is number of animals necropsied

Version: Nov2014
 Contract/Lab: All Laboratories
 Species: RATS
 Strain: Wistar Han
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Toxicology Data Management System
 Tumor Incidence for Selected Control Animal Groups
 Route: GAVAGE
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		Male			Female		
*Brain:							
Meningioma Malignant							
		0/50	(0%)		0/50	(0%)	
Overall Incidence	Total	0/50	(0%)	Mean 0%	SD 0%	Total	0/50 (0%)
							Mean 0%
							SD 0%
.....							
*Brain:							
Meningioma: Benign, Malignant, NOS							
		0/50	(0%)		0/50	(0%)	
Overall Incidence	Total	0/50	(0%)	Mean 0%	SD 0%	Total	0/50 (0%)
							Mean 0%
							SD 0%
.....							
*Brain:							
Oligodendroglioma, Glioma, or Astrocytoma							
		1/50	(2%)		0/50	(0%)	
Overall Incidence	Total	1/50	(2%)	Mean 2%	SD 0%	Total	0/50 (0%)
							Mean 0%
							SD 0%
.....							
*Clitoral/Preputial Gland:							
Carcinoma							
		1/50	(2%)		0/49	(0%)	
Overall Incidence	Total	1/50	(2%)	Mean 2%	SD 0%	Total	0/49 (0%)
							Mean 0%
							SD 0%
.....							
*Clitoral/Preputial Gland:							
Carcinoma or Adenoma							
		1/50	(2%)		0/49	(0%)	
Overall Incidence	Total	1/50	(2%)	Mean 2%	SD 0%	Total	0/49 (0%)
							Mean 0%
							SD 0%
.....							
*Heart:							
Schwannoma Benign							
		0/50	(0%)		0/50	(0%)	
Overall Incidence	Total	0/50	(0%)	Mean 0%	SD 0%	Total	0/50 (0%)
							Mean 0%
							SD 0%

*: Denominator is number of animals with tissues examined microscopically
 #: Denominator is number of animals necropsied

Version: Nov2014
 Contract/Lab: All Laboratories
 Species: RATS
 Strain: Wistar Han
 Length of Study: CHRONIC

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		Male				Female			
*Heart:									
Schwannoma NOS									
		0/50	(0%)			0/50	(0%)		
Overall Incidence	Total	0/50	(0%)	Mean 0%	SD 0%	Total	0/50	(0%)	Mean 0% SD 0%
.....									
#Intestine Small: Duodenum:									
Fibroma									
		0/50	(0%)			0/50	(0%)		
Overall Incidence	Total	0/50	(0%)	Mean 0%	SD 0%	Total	0/50	(0%)	Mean 0% SD 0%
.....									
#Intestine Small: Duodenum:									
Leiomyosarcoma									
		0/50	(0%)			0/50	(0%)		
Overall Incidence	Total	0/50	(0%)	Mean 0%	SD 0%	Total	0/50	(0%)	Mean 0% SD 0%
.....									
#Intestine Small: Jejunum:									
Leiomyoma									
		0/50	(0%)			0/50	(0%)		
Overall Incidence	Total	0/50	(0%)	Mean 0%	SD 0%	Total	0/50	(0%)	Mean 0% SD 0%
.....									
#Intestine Small: Jejunum:									
Leiomyosarcoma									
		0/50	(0%)			1/50	(2%)		
Overall Incidence	Total	0/50	(0%)	Mean 0%	SD 0%	Total	1/50	(2%)	Mean 2% SD 0%
.....									
#Intestine Small: Site Unspecified:									
Fibroma									
		0/50	(0%)			0/50	(0%)		
Overall Incidence	Total	0/50	(0%)	Mean 0%	SD 0%	Total	0/50	(0%)	Mean 0% SD 0%

*: Denominator is number of animals with tissues examined microscopically
 #: Denominator is number of animals necropsied

Version: Nov2014
 Contract/Lab: All Laboratories
 Species: RATS
 Strain: Wistar Han
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		Male				Female			
#Intestine Small: Site Unspecified:									
Leiomyoma									
		0/50	(0%)			0/50	(0%)		
Overall Incidence	Total	0/50	(0%)	Mean 0%	SD 0%	Total	0/50	(0%)	Mean 0% SD 0%
.....									
#Intestine Small: Site Unspecified:									
Leiomyosarcoma									
		0/50	(0%)			1/50	(2%)		
Overall Incidence	Total	0/50	(0%)	Mean 0%	SD 0%	Total	1/50	(2%)	Mean 2% SD 0%
.....									
*Islets, Pancreatic:									
Adenoma									
		0/50	(0%)			0/50	(0%)		
Overall Incidence	Total	0/50	(0%)	Mean 0%	SD 0%	Total	0/50	(0%)	Mean 0% SD 0%
.....									
*Islets, Pancreatic:									
Carcinoma									
		0/50	(0%)			0/50	(0%)		
Overall Incidence	Total	0/50	(0%)	Mean 0%	SD 0%	Total	0/50	(0%)	Mean 0% SD 0%
.....									
*Islets, Pancreatic:									
Carcinoma or Adenoma									
		0/50	(0%)			0/50	(0%)		
Overall Incidence	Total	0/50	(0%)	Mean 0%	SD 0%	Total	0/50	(0%)	Mean 0% SD 0%
.....									
*Kidney: Pelvis and Transitional Epithelium:									
Papilloma									
		0/50	(0%)			0/50	(0%)		
Overall Incidence	Total	0/50	(0%)	Mean 0%	SD 0%	Total	0/50	(0%)	Mean 0% SD 0%

*: Denominator is number of animals with tissues examined microscopically
 #: Denominator is number of animals necropsied

Version: Nov2014
 Contract/Lab: All Laboratories
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 Strain: Wistar Han
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		Male				Female			
*Kidney: Renal Tubule: Adenoma									
		0/50	(0%)			0/50	(0%)		
Overall Incidence	Total	0/50	(0%)	Mean 0%	SD 0%	Total	0/50	(0%)	Mean 0% SD 0%
.....									
*Kidney: Renal Tubule: Carcinoma									
		0/50	(0%)			0/50	(0%)		
Overall Incidence	Total	0/50	(0%)	Mean 0%	SD 0%	Total	0/50	(0%)	Mean 0% SD 0%
.....									
*Kidney: Renal Tubule: Carcinoma or Adenoma									
		0/50	(0%)			0/50	(0%)		
Overall Incidence	Total	0/50	(0%)	Mean 0%	SD 0%	Total	0/50	(0%)	Mean 0% SD 0%
.....									
*Kidney: Renal Tubule: Lipoma									
		0/50	(0%)			1/50	(2%)		
Overall Incidence	Total	0/50	(0%)	Mean 0%	SD 0%	Total	1/50	(2%)	Mean 2% SD 0%
.....									
*Kidney: Renal Tubule: Liposarcoma									
		1/50	(2%)			0/50	(0%)		
Overall Incidence	Total	1/50	(2%)	Mean 2%	SD 0%	Total	0/50	(0%)	Mean 0% SD 0%
.....									
*Liver: Hepatocellular Adenoma									
		0/50	(0%)			1/50	(2%)		
Overall Incidence	Total	0/50	(0%)	Mean 0%	SD 0%	Total	1/50	(2%)	Mean 2% SD 0%

*: Denominator is number of animals with tissues examined microscopically
 #: Denominator is number of animals necropsied

Version: Nov2014
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	Male				Female			
*Liver:								
Hepatocellular Carcinoma or Hepatocellular Adenoma								
		0/50 (0%)			1/50 (2%)			
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	1/50 (2%)	Mean 2%	SD 0%
.....								
*Liver:								
Hepatocellular Carcinoma, Hepatocellular Adenoma, or Hepatoblastoma								
		0/50 (0%)			1/50 (2%)			
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	1/50 (2%)	Mean 2%	SD 0%
.....								
*Lung:								
Alveolar/Bronchiolar Adenoma								
		0/50 (0%)			0/50 (0%)			
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%
.....								
*Lung:								
Alveolar/Bronchiolar Carcinoma or Alveolar/Bronchiolar Adenoma								
		0/50 (0%)			0/50 (0%)			
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%
.....								
#Lymph Node:								
Hemangioma								
		0/50 (0%)			0/50 (0%)			
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%
.....								
#Lymph Node, Mesenteric:								
Hemangioma								
		0/50 (0%)			0/50 (0%)			
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%
.....								
*: Denominator is number of animals with tissues examined microscopically								
#: Denominator is number of animals necropsied								

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	Male				Female			
#Lymph Node, Mesenteric: Hemangiosarcoma								
		0/50 (0%)			1/50 (2%)			
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	1/50 (2%)	Mean 2%	SD 0%
.....								
#Mammary Gland: Adenoma								
		0/50 (0%)			2/50 (4%)			
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	2/50 (4%)	Mean 4%	SD 0%
.....								
#Mammary Gland: Carcinoma								
		0/50 (0%)			6/50 (12%)			
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	6/50 (12%)	Mean 12%	SD 0%
.....								
#Mammary Gland: Carcinoma or Adenoma								
		0/50 (0%)			8/50 (16%)			
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	8/50 (16%)	Mean 16%	SD 0%
.....								
#Mammary Gland: Fibroadenoma								
		0/50 (0%)			11/50 (22%)			
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	11/50 (22%)	Mean 22%	SD 0%
.....								
#Mammary Gland: Fibroma, Fibroadenoma or Adenoma								
		0/50 (0%)			11/50 (22%)			
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	11/50 (22%)	Mean 22%	SD 0%

*: Denominator is number of animals with tissues examined microscopically

#: Denominator is number of animals necropsied

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	Male				Female			
#Mammary Gland:								
Fibroma, Fibroadenoma, Carcinoma, or Adenoma								
		0/50	(0%)			15/50	(30%)	
Overall Incidence	Total	0/50	(0%)	Mean 0%	SD 0%	Total	15/50 (30%)	Mean 30%
								SD 0%
.....								
#Mesentery:								
Hemangiosarcoma								
		0/50	(0%)			1/50	(2%)	
Overall Incidence	Total	0/50	(0%)	Mean 0%	SD 0%	Total	1/50 (2%)	Mean 2%
								SD 0%
.....								
#Mesentery:								
Lipoma								
		0/50	(0%)			0/50	(0%)	
Overall Incidence	Total	0/50	(0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%
								SD 0%
.....								
#Mesentery:								
Schwannoma Malignant								
		1/50	(2%)			0/50	(0%)	
Overall Incidence	Total	1/50	(2%)	Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0%
								SD 0%
.....								
*Nose:								
Chondroma								
		0/50	(0%)			0/49	(0%)	
Overall Incidence	Total	0/50	(0%)	Mean 0%	SD 0%	Total	0/49 (0%)	Mean 0%
								SD 0%
.....								
*Nose:								
Olfactory Neuroblastoma								
		0/50	(0%)			0/49	(0%)	
Overall Incidence	Total	0/50	(0%)	Mean 0%	SD 0%	Total	0/49 (0%)	Mean 0%
								SD 0%
.....								

*: Denominator is number of animals with tissues examined microscopically

#: Denominator is number of animals necropsied

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	Male				Female			
#Oral Cavity (Oral Mucosa, Tongue, Pharynx, Tooth, Gingiva): Squamous Cell Carcinoma								
		1/50 (2%)			1/50 (2%)			
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%	Total	1/50 (2%)	Mean 2%	SD 0%
.....								
#Oral Cavity (Oral Mucosa, Tongue, Pharynx, Tooth, Gingiva): Squamous Cell Carcinoma, Papilloma Squamous, or Papilloma								
		1/50 (2%)			1/50 (2%)			
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%	Total	1/50 (2%)	Mean 2%	SD 0%
.....								
#Oral Mucosa: Squamous Cell Carcinoma								
		1/50 (2%)			1/50 (2%)			
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%	Total	1/50 (2%)	Mean 2%	SD 0%
.....								
*Ovary: Adenoma								
					0/50 (0%)			
Overall Incidence	Total				0/50 (0%)	Mean 0%	SD 0%	
.....								
*Ovary: Cystadenoma								
					0/50 (0%)			
Overall Incidence	Total				0/50 (0%)	Mean 0%	SD 0%	
.....								
*Ovary: Granulosa Cell Tumor Benign								
					0/50 (0%)			
Overall Incidence	Total				0/50 (0%)	Mean 0%	SD 0%	

*: Denominator is number of animals with tissues examined microscopically
 #: Denominator is number of animals necropsied

Version: Nov2014
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Male					Female					
*Ovary:										
Granulosa Cell Tumor Malignant										
					0/50	(0%)				
Overall Incidence					Total	0/50 (0%)	Mean	0%	SD	0%
.....										
*Ovary:										
Granulosa Cell Tumor: Benign, Malignant, NOS										
					0/50	(0%)				
Overall Incidence					Total	0/50 (0%)	Mean	0%	SD	0%
.....										
*Ovary:										
Sex Cord Stromal Tumor, Benign										
					0/50	(0%)				
Overall Incidence					Total	0/50 (0%)	Mean	0%	SD	0%
.....										
*Ovary:										
Tubulostromal Adenoma										
					0/50	(0%)				
Overall Incidence					Total	0/50 (0%)	Mean	0%	SD	0%
.....										
*Pancreas:										
Adenoma										
					0/50	(0%)				
Overall Incidence					Total	0/50 (0%)	Mean	0%	SD	0%
.....										
*Pancreas:										
Carcinoma or Adenoma										
					0/50	(0%)				
Overall Incidence					Total	0/50 (0%)	Mean	0%	SD	0%
.....										
*: Denominator is number of animals with tissues examined microscopically										
#: Denominator is number of animals necropsied										

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		Male			Female		
*Parathyroid Gland:							
Adenoma							
		0/47	(0%)		0/47	(0%)	
Overall Incidence	Total	0/47	(0%)	Mean 0%	SD 0%	Total	0/47 (0%)
.....							
*Pituitary Gland: Pars Distalis or Unspecified Site:							
Adenoma							
		17/50	(34%)		32/50	(64%)	
Overall Incidence	Total	17/50	(34%)	Mean 34%	SD 0%	Total	32/50 (64%)
.....							
*Pituitary Gland: Pars Distalis or Unspecified Site:							
Carcinoma							
		0/50	(0%)		0/50	(0%)	
Overall Incidence	Total	0/50	(0%)	Mean 0%	SD 0%	Total	0/50 (0%)
.....							
*Pituitary Gland: Pars Distalis or Unspecified Site:							
Carcinoma or Adenoma							
		17/50	(34%)		32/50	(64%)	
Overall Incidence	Total	17/50	(34%)	Mean 34%	SD 0%	Total	32/50 (64%)
.....							
*Pituitary Gland: Pars Intermedia:							
Adenoma							
		1/50	(2%)		2/50	(4%)	
Overall Incidence	Total	1/50	(2%)	Mean 2%	SD 0%	Total	2/50 (4%)
.....							
*Pituitary Gland: Pars Intermedia:							
Carcinoma or Adenoma							
		1/50	(2%)		2/50	(4%)	
Overall Incidence	Total	1/50	(2%)	Mean 2%	SD 0%	Total	2/50 (4%)
.....							

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		Male				Female			
*Prostate:									
Adenoma									
		0/50	(0%)						
Overall Incidence	Total	0/50	(0%)	Mean 0%	SD 0%				
.....									
*Prostate:									
Carcinoma or Adenoma									
		0/50	(0%)						
Overall Incidence	Total	0/50	(0%)	Mean 0%	SD 0%				
.....									
*Salivary Glands:									
Adenoma									
		0/50	(0%)			0/49	(0%)		
Overall Incidence	Total	0/50	(0%)	Mean 0%	SD 0%	Total	0/49	(0%)	Mean 0% SD 0%
.....									
*Salivary Glands:									
Carcinoma									
		0/50	(0%)			0/49	(0%)		
Overall Incidence	Total	0/50	(0%)	Mean 0%	SD 0%	Total	0/49	(0%)	Mean 0% SD 0%
.....									
*Salivary Glands:									
Carcinoma or Adenoma									
		0/50	(0%)			0/49	(0%)		
Overall Incidence	Total	0/50	(0%)	Mean 0%	SD 0%	Total	0/49	(0%)	Mean 0% SD 0%
.....									
*Salivary Glands:									
Myoepithelioma									
		0/50	(0%)			0/49	(0%)		
Overall Incidence	Total	0/50	(0%)	Mean 0%	SD 0%	Total	0/49	(0%)	Mean 0% SD 0%

*: Denominator is number of animals with tissues examined microscopically

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		Male			Female		
*Salivary Glands:							
Schwannoma Malignant							
		0/50	(0%)		0/49	(0%)	
Overall Incidence	Total	0/50	(0%)	Mean 0%	SD 0%	Total	0/49 (0%)
							Mean 0%
							SD 0%
.....							
#Seminal Vesicle:							
Adenoma							
		0/50	(0%)				
Overall Incidence	Total	0/50	(0%)	Mean 0%	SD 0%		
.....							
#Skeletal Muscle:							
Hemangiosarcoma							
		0/50	(0%)		0/50	(0%)	
Overall Incidence	Total	0/50	(0%)	Mean 0%	SD 0%	Total	0/50 (0%)
							Mean 0%
							SD 0%
.....							
#Skeletal Muscle:							
Sarcoma							
		0/50	(0%)		0/50	(0%)	
Overall Incidence	Total	0/50	(0%)	Mean 0%	SD 0%	Total	0/50 (0%)
							Mean 0%
							SD 0%
.....							
#Skin:							
Basal Cell Adenoma							
		2/50	(4%)		0/50	(0%)	
Overall Incidence	Total	2/50	(4%)	Mean 4%	SD 0%	Total	0/50 (0%)
							Mean 0%
							SD 0%
.....							
#Skin:							
Basal Cell Adenoma or Basosquamous Tumor Benign							
		2/50	(4%)		0/50	(0%)	
Overall Incidence	Total	2/50	(4%)	Mean 4%	SD 0%	Total	0/50 (0%)
							Mean 0%
							SD 0%
.....							

*: Denominator is number of animals with tissues examined microscopically

#: Denominator is number of animals necropsied

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	Male				Female			
#Skin:								
Basal Cell Adenoma, Basosquamous Tumor Benign, or Trichoepithelioma								
		2/50	(4%)			0/50	(0%)	
Overall Incidence	Total	2/50	(4%)	Mean 4%	SD 0%	Total	0/50	(0%)
							Mean 0%	SD 0%
.....								
#Skin:								
Basal Cell Carcinoma								
		0/50	(0%)			0/50	(0%)	
Overall Incidence	Total	0/50	(0%)	Mean 0%	SD 0%	Total	0/50	(0%)
							Mean 0%	SD 0%
.....								
#Skin:								
Basal Cell Carcinoma or Basosquamous Tumor (malignant or NOS)								
		0/50	(0%)			0/50	(0%)	
Overall Incidence	Total	0/50	(0%)	Mean 0%	SD 0%	Total	0/50	(0%)
							Mean 0%	SD 0%
.....								
#Skin:								
Basal Cell Carcinoma, Basal Cell Adenoma, Basosquamous Tumor (benign, malignant or NOS), or Trichoepithelioma								
		2/50	(4%)			0/50	(0%)	
Overall Incidence	Total	2/50	(4%)	Mean 4%	SD 0%	Total	0/50	(0%)
							Mean 0%	SD 0%
.....								
#Skin:								
Basal or Sq. Cell Carcinoma, Carcinoma, Basosq. Tumor (M or B), Basal Cell Adenoma, Adenoma, Papilloma, Sq Papilloma, Keratoacanthoma, Trichoepithelioma								
		6/50	(12%)			0/50	(0%)	
Overall Incidence	Total	6/50	(12%)	Mean 12%	SD 0%	Total	0/50	(0%)
							Mean 0%	SD 0%
.....								
#Skin:								
Fibroma								
		1/50	(2%)			0/50	(0%)	
Overall Incidence	Total	1/50	(2%)	Mean 2%	SD 0%	Total	0/50	(0%)
							Mean 0%	SD 0%

*: Denominator is number of animals with tissues examined microscopically

#: Denominator is number of animals necropsied

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	Male				Female			
#Skin:								
Fibroma, Fibrosarcoma, Sarcoma, Myxoma, Myxosarcoma, or Fibrous Histiocytoma								
		1/50 (2%)				0/50 (0%)		
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%
.....								
#Skin:								
Fibrosarcoma								
		0/50 (0%)				0/50 (0%)		
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%
.....								
#Skin:								
Fibrosarcoma, Sarcoma, Myxosarcoma, or Fibrous Histiocytoma								
		0/50 (0%)				0/50 (0%)		
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%
.....								
#Skin:								
Hamartoma								
		1/50 (2%)				0/50 (0%)		
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%
.....								
#Skin:								
Hemangiosarcoma								
		0/50 (0%)				0/50 (0%)		
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%
.....								
#Skin:								
Keratoacanthoma								
		2/50 (4%)				0/50 (0%)		
Overall Incidence	Total	2/50 (4%)	Mean 4%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%

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 #: Denominator is number of animals necropsied

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	Male				Female			
#Skin:								
Lipoma								
		1/50	(2%)			0/50	(0%)	
Overall Incidence	Total	1/50	(2%)	Mean 2%	SD 0%	Total	0/50	(0%)
							Mean 0%	SD 0%
.....								
#Skin:								
Liposarcoma								
		0/50	(0%)			0/50	(0%)	
Overall Incidence	Total	0/50	(0%)	Mean 0%	SD 0%	Total	0/50	(0%)
							Mean 0%	SD 0%
.....								
#Skin:								
Neurofibrosarcoma or Schwannoma (malignant or NOS)								
		2/50	(4%)			2/50	(4%)	
Overall Incidence	Total	2/50	(4%)	Mean 4%	SD 0%	Total	2/50	(4%)
							Mean 4%	SD 0%
.....								
#Skin:								
Neurofibrosarcoma, Neurofibroma, or Schwannoma (benign, malignant or NOS)								
		2/50	(4%)			2/50	(4%)	
Overall Incidence	Total	2/50	(4%)	Mean 4%	SD 0%	Total	2/50	(4%)
							Mean 4%	SD 0%
.....								
#Skin:								
Schwannoma Malignant								
		2/50	(4%)			2/50	(4%)	
Overall Incidence	Total	2/50	(4%)	Mean 4%	SD 0%	Total	2/50	(4%)
							Mean 4%	SD 0%
.....								
#Skin:								
Squamous Cell Carcinoma								
		1/50	(2%)			0/50	(0%)	
Overall Incidence	Total	1/50	(2%)	Mean 2%	SD 0%	Total	0/50	(0%)
							Mean 0%	SD 0%

*: Denominator is number of animals with tissues examined microscopically

#: Denominator is number of animals necropsied

Version: Nov2014
 Contract/Lab: All Laboratories
 Species: RATS
 Strain: Wistar Han
 Length of Study: CHRONIC

Toxicology Data Management System
 Tumor Incidence for Selected Control Animal Groups
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	Male				Female			
#Skin:								
Squamous Cell Carcinoma, Basal Cell Carcinoma, Basosquamous Tumor (malignant or NOS), or Carcinoma								
		1/50	(2%)			0/50	(0%)	
Overall Incidence	Total	1/50	(2%)	Mean 2%	SD 0%	Total	0/50	(0%)
							Mean 0%	SD 0%
.....								
#Skin:								
Squamous Cell Papilloma								
		1/50	(2%)			0/50	(0%)	
Overall Incidence	Total	1/50	(2%)	Mean 2%	SD 0%	Total	0/50	(0%)
							Mean 0%	SD 0%
.....								
#Skin:								
Squamous Cell Papilloma or Papilloma								
		1/50	(2%)			0/50	(0%)	
Overall Incidence	Total	1/50	(2%)	Mean 2%	SD 0%	Total	0/50	(0%)
							Mean 0%	SD 0%
.....								
#Skin:								
Squamous Cell Papilloma, Papilloma, Squamous Cell Carcinoma or Keratoacanthoma								
		4/50	(8%)			0/50	(0%)	
Overall Incidence	Total	4/50	(8%)	Mean 8%	SD 0%	Total	0/50	(0%)
							Mean 0%	SD 0%
.....								
#Skin:								
Squamous Cell Papilloma, Papilloma, or Keratoacanthoma								
		3/50	(6%)			0/50	(0%)	
Overall Incidence	Total	3/50	(6%)	Mean 6%	SD 0%	Total	0/50	(0%)
							Mean 0%	SD 0%
.....								
#Skin: Sebaceous Gland:								
Adenoma								
		1/50	(2%)			0/50	(0%)	
Overall Incidence	Total	1/50	(2%)	Mean 2%	SD 0%	Total	0/50	(0%)
							Mean 0%	SD 0%

*: Denominator is number of animals with tissues examined microscopically
 #: Denominator is number of animals necropsied

Version: Nov2014
 Contract/Lab: All Laboratories
 Species: RATS
 Strain: Wistar Han
 Length of Study: CHRONIC

Toxicology Data Management System
 Tumor Incidence for Selected Control Animal Groups
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 Vehicle: WATER

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		Male			Female		
#Skin, Sebaceous Gland:							
Carcinoma or Adenoma							
		1/50	(2%)		0/50	(0%)	
Overall Incidence	Total	1/50	(2%)	Mean 2%	SD 0%	Total	0/50 (0%)
							Mean 0%
							SD 0%
.....							
*Spleen:							
Hemangiosarcoma							
		0/50	(0%)		0/50	(0%)	
Overall Incidence	Total	0/50	(0%)	Mean 0%	SD 0%	Total	0/50 (0%)
							Mean 0%
							SD 0%
.....							
#Stomach, Forestomach:							
Fibrosarcoma							
		0/50	(0%)		0/50	(0%)	
Overall Incidence	Total	0/50	(0%)	Mean 0%	SD 0%	Total	0/50 (0%)
							Mean 0%
							SD 0%
.....							
#Stomach, Forestomach:							
Leiomyoma							
		0/50	(0%)		0/50	(0%)	
Overall Incidence	Total	0/50	(0%)	Mean 0%	SD 0%	Total	0/50 (0%)
							Mean 0%
							SD 0%
.....							
#Stomach, Forestomach:							
Leiomyosarcoma							
		1/50	(2%)		0/50	(0%)	
Overall Incidence	Total	1/50	(2%)	Mean 2%	SD 0%	Total	0/50 (0%)
							Mean 0%
							SD 0%
.....							
#Stomach, Forestomach:							
Sarcoma							
		0/50	(0%)		0/50	(0%)	
Overall Incidence	Total	0/50	(0%)	Mean 0%	SD 0%	Total	0/50 (0%)
							Mean 0%
							SD 0%

*: Denominator is number of animals with tissues examined microscopically

#: Denominator is number of animals necropsied

Version: Nov2014
 Contract/Lab: All Laboratories
 Species: RATS
 Strain: Wistar Han
 Length of Study: CHRONIC

Toxicology Data Management System
 Tumor Incidence for Selected Control Animal Groups
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		Male			Female		
#Stomach, Forestomach:							
Squamous Cell Carcinoma							
		0/50	(0%)		1/50	(2%)	
Overall Incidence	Total	0/50	(0%)	Mean 0%	SD 0%	Total	1/50 (2%)
						Mean 2%	SD 0%
.....							
#Stomach, Forestomach:							
Squamous Cell Carcinoma or Papilloma Squamous							
		0/50	(0%)		1/50	(2%)	
Overall Incidence	Total	0/50	(0%)	Mean 0%	SD 0%	Total	1/50 (2%)
						Mean 2%	SD 0%
.....							
#Stomach, Forestomach:							
Squamous Cell Papilloma							
		0/50	(0%)		0/50	(0%)	
Overall Incidence	Total	0/50	(0%)	Mean 0%	SD 0%	Total	0/50 (0%)
						Mean 0%	SD 0%
.....							
#Stomach, Glandular:							
Fibrosarcoma							
		0/50	(0%)		0/50	(0%)	
Overall Incidence	Total	0/50	(0%)	Mean 0%	SD 0%	Total	0/50 (0%)
						Mean 0%	SD 0%
.....							
#Stomach, Glandular:							
Leiomyosarcoma							
		0/50	(0%)		0/50	(0%)	
Overall Incidence	Total	0/50	(0%)	Mean 0%	SD 0%	Total	0/50 (0%)
						Mean 0%	SD 0%
.....							
#Stomach, Glandular:							
Sarcoma							
		0/50	(0%)		0/50	(0%)	
Overall Incidence	Total	0/50	(0%)	Mean 0%	SD 0%	Total	0/50 (0%)
						Mean 0%	SD 0%

*: Denominator is number of animals with tissues examined microscopically

#: Denominator is number of animals necropsied

Version: Nov2014
 Contract/Lab: All Laboratories
 Species: RATS
 Strain: Wistar Han
 Length of Study: CHRONIC

Toxicology Data Management System
 Tumor Incidence for Selected Control Animal Groups
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		Male				Female			
*Testes:									
Adenoma									
		2/50	(4%)						
Overall Incidence	Total	2/50	(4%)	Mean 4%	SD 0%				
.....									
*Testes:									
Hemangiosarcoma									
		0/50	(0%)						
Overall Incidence	Total	0/50	(0%)	Mean 0%	SD 0%				
.....									
*Thymus:									
Sarcoma									
		0/49	(0%)			0/49	(0%)		
Overall Incidence	Total	0/49	(0%)	Mean 0%	SD 0%	Total	0/49	(0%)	Mean 0% SD 0%
.....									
*Thymus:									
Thymoma Benign									
		2/49	(4%)			3/49	(6%)		
Overall Incidence	Total	2/49	(4.08%)	Mean 4.08%	SD 0%	Total	3/49	(6.12%)	Mean 6.12% SD 0%
.....									
*Thymus:									
Thymoma: Benign, Malignant, NOS									
		2/49	(4%)			3/49	(6%)		
Overall Incidence	Total	2/49	(4.08%)	Mean 4.08%	SD 0%	Total	3/49	(6.12%)	Mean 6.12% SD 0%
.....									
*Thyroid Gland:									
Carcinoma									
		0/50	(0%)			0/50	(0%)		
Overall Incidence	Total	0/50	(0%)	Mean 0%	SD 0%	Total	0/50	(0%)	Mean 0% SD 0%
.....									

*: Denominator is number of animals with tissues examined microscopically

#: Denominator is number of animals necropsied

Version: Nov2014
 Contract/Lab: All Laboratories
 Species: RATS
 Strain: Wistar Han
 Length of Study: CHRONIC

Toxicology Data Management System
 Tumor Incidence for Selected Control Animal Groups
 Route: GAVAGE
 Vehicle: WATER

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		Male			Female		
*Thyroid Gland: C-Cell: Adenoma							
Overall Incidence	Total	4/50 (8%)	Mean 8%	SD 0%	Total	3/50 (6%)	Mean 6% SD 0%
.....							
*Thyroid Gland: C-Cell: Carcinoma							
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	1/50 (2%)	Mean 2% SD 0%
.....							
*Thyroid Gland: C-Cell: Carcinoma or Adenoma							
Overall Incidence	Total	4/50 (8%)	Mean 8%	SD 0%	Total	4/50 (8%)	Mean 8% SD 0%
.....							
*Thyroid Gland: Follicular Cell: Adenoma							
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	1/50 (2%)	Mean 2% SD 0%
.....							
*Thyroid Gland: Follicular Cell: Carcinoma							
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/50 (0%)	Mean 0% SD 0%
.....							
*Thyroid Gland: Follicular Cell: Carcinoma or Adenoma							
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	1/50 (2%)	Mean 2% SD 0%

*: Denominator is number of animals with tissues examined microscopically
 #: Denominator is number of animals necropsied

Version: Nov2014
 Contract/Lab: All Laboratories
 Species: RATS
 Strain: Wistar Han
 Length of Study: CHRONIC

Toxicology Data Management System
 Tumor Incidence for Selected Control Animal Groups
 Route: GAVAGE
 Vehicle: WATER

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	Male				Female			
*Urinary Bladder: Carcinoma or Papilloma								
		0/50 (0%)			0/49 (0%)			
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/49 (0%)	Mean 0%	SD 0%
.....								
*Urinary Bladder: Papilloma								
		0/50 (0%)			0/49 (0%)			
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/49 (0%)	Mean 0%	SD 0%
.....								
#Uterus: Adenoma								
					0/50 (0%)			
Overall Incidence					Total	0/50 (0%)	Mean 0%	SD 0%
.....								
#Uterus: Carcinoma								
					3/50 (6%)			
Overall Incidence					Total	3/50 (6%)	Mean 6%	SD 0%
.....								
#Uterus: Granular Cell Tumor Benign								
					0/50 (0%)			
Overall Incidence					Total	0/50 (0%)	Mean 0%	SD 0%
.....								
#Uterus: Hemangiosarcoma								
					0/50 (0%)			
Overall Incidence					Total	0/50 (0%)	Mean 0%	SD 0%

*: Denominator is number of animals with tissues examined microscopically

#: Denominator is number of animals necropsied

Version: Nov2014
 Contract/Lab: All Laboratories
 Species: RATS
 Strain: Wistar Han
 Length of Study: CHRONIC

Toxicology Data Management System
 Tumor Incidence for Selected Control Animal Groups
Route: GAVAGE
Vehicle: WATER

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	Male		Female	
#Uterus: Leiomyosarcoma				
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%
#Uterus: Malignant Mixed Mullerian Tumor				
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%
#Uterus: Polyp Stromal				
Overall Incidence	Total	3/50 (6%)	Mean 6%	SD 0%
#Uterus: Sarcoma Stromal				
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%
#Uterus: Sarcoma Stromal or Polyp Stromal				
Overall Incidence	Total	4/50 (8%)	Mean 8%	SD 0%
#Uterus: Schwannoma Malignant				
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%

*: Denominator is number of animals with tissues examined microscopically

#: Denominator is number of animals necropsied

Version: Nov2014
 Contract/Lab: All Laboratories
 Species: RATS
 Strain: Wistar Han
 Length of Study: CHRONIC

Toxicology Data Management System
 Tumor Incidence for Selected Control Animal Groups
 Route: GAVAGE
 Vehicle: WATER

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				Male					Female
#Uterus:									
Squamous Cell Papilloma									
						0/50 (0%)			
Overall Incidence				Total	0/50 (0%)	Mean 0%	SD 0%		
.....									
#Vagina:									
Fibrosarcoma									
						0/50 (0%)			
Overall Incidence				Total	0/50 (0%)	Mean 0%	SD 0%		
.....									
#Vagina:									
Leiomyoma									
						0/50 (0%)			
Overall Incidence				Total	0/50 (0%)	Mean 0%	SD 0%		
.....									
#Vagina:									
Polyp									
						1/50 (2%)			
Overall Incidence				Total	1/50 (2%)	Mean 2%	SD 0%		
.....									
#Zymbal's Gland:									
Carcinoma									
					1/50 (2%)				
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	
.....									
#Zymbal's Gland:									
Carcinoma or Adenoma									
					1/50 (2%)				
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%	Total	0/50 (0%)	Mean 0%	SD 0%	

*: Denominator is number of animals with tissues examined microscopically

#: Denominator is number of animals necropsied

Version: Nov2014
Contract/Lab: All Laboratories
Species: RATS
Strain: Wistar Han
Length of Study: CHRONIC

Toxicology Data Management System
Tumor Incidence for Selected Control Animal Groups
Route: INHALATION
Vehicle: AIR

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Study Summary

Laboratory Name	Study Number	Study Start Date	Length of Study in Days	Number of Animals Total and (#/Cage)	Number Surviving and (Mean Life Span)	Maximum Mean Weekly Body Weight	Chemical
Male							
Battelle Northwest	052060103	09/22/08	729	50(5)	30(672)	606.7	Antimony trioxide
Battelle Northwest	052051503	04/14/08	729	50(5)	33(688)	602.8	Metal working fluids (CIMSTAR 3800)
Battelle Northwest	052052303	07/20/09	729	50(5)	36(696)	622.2	Metal working fluids (Trim VX)
Female							
Battelle Northwest	052060103	09/22/08	730	50(5)	39(704)	395.6	Antimony trioxide
Battelle Northwest	052051503	04/14/08	731	50(5)	35(700)	384.9	Metal working fluids (CIMSTAR 3800)
Battelle Northwest	052052303	07/20/09	731	50(5)	30(681)	391.1	Metal working fluids (Trim VX)

Version: Nov2014
 Contract/Lab: All Laboratories
 Species: RATS
 Strain: Wistar Han
 Length of Study: CHRONIC

Toxicology Data Management System
 Tumor Incidence for Selected Control Animal Groups
 Route: INHALATION
 Vehicle: AIR

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		Male			Female		
#All Organs:							
Benign Tumors							
		34/50 (68%)	32/50 (64%)	24/50 (48%)	33/50 (66%)	42/50 (84%)	42/50 (84%)
Overall Incidence	Total	90/150 (60%)	Mean 60%	SD 10.58%	Total	117/150 (78%)	Mean 78% SD 10.39%
.....							
#All Organs:							
Malignant Tumors							
		6/50 (12%)	13/50 (26%)	4/50 (8%)	17/50 (34%)	11/50 (22%)	13/50 (26%)
Overall Incidence	Total	23/150 (15.33%)	Mean 15.33%	SD 9.45%	Total	41/150 (27.33%)	Mean 27.33% SD 6.11%
.....							
#All Organs:							
Malignant and Benign Tumors							
		36/50 (72%)	37/50 (74%)	26/50 (52%)	40/50 (80%)	43/50 (86%)	47/50 (94%)
Overall Incidence	Total	99/150 (66%)	Mean 66%	SD 12.17%	Total	130/150 (86.67%)	Mean 86.67% SD 7.02%
.....							
#All Organs:							
Hemangioma							
		1/50 (2%)	0/50 (0%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
Overall Incidence	Total	2/150 (1.33%)	Mean 1.33%	SD 1.15%	Total	0/150 (0%)	Mean 0% SD 0%
.....							
#All Organs:							
Hemangiosarcoma							
		3/50 (6%)	3/50 (6%)	0/50 (0%)	1/50 (2%)	1/50 (2%)	0/50 (0%)
Overall Incidence	Total	6/150 (4%)	Mean 4%	SD 3.46%	Total	2/150 (1.33%)	Mean 1.33% SD 1.15%
.....							
#All Organs:							
Hemangiosarcoma or Hemangioma							
		4/50 (8%)	3/50 (6%)	1/50 (2%)	1/50 (2%)	1/50 (2%)	0/50 (0%)
Overall Incidence	Total	8/150 (5.33%)	Mean 5.33%	SD 3.06%	Total	2/150 (1.33%)	Mean 1.33% SD 1.15%

*: Denominator is number of animals with tissues examined microscopically

#: Denominator is number of animals necropsied

Version: Nov2014
 Contract/Lab: All Laboratories
 Species: RATS
 Strain: Wistar Han
 Length of Study: CHRONIC

Toxicology Data Management System
 Tumor Incidence for Selected Control Animal Groups
Route: INHALATION
Vehicle: AIR

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		Male			Female		
#All Organs:							
Histiocytic Sarcoma							
		0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	2/50 (4%)
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	2/150 (1.33%)	Mean 1.33% SD 2.31%
.....							
#All Organs:							
Leukemia: Lymphocytic, Monocytic, Mononuclear, or Undifferentiated							
		1/50 (2%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
Overall Incidence	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	Total	0/150 (0%)	Mean 0% SD 0%
.....							
#All Organs:							
Malignant Lymphoma: Histiocytic, Lymphocytic, Mixed, NOS, or Undifferentiated Cell Type							
		0/50 (0%)	0/50 (0%)	1/50 (2%)	0/50 (0%)	2/50 (4%)	1/50 (2%)
Overall Incidence	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	Total	3/150 (2%)	Mean 2% SD 2%
.....							
#All Organs:							
Mesothelioma: Benign, Malignant, NOS							
		0/50 (0%)	1/50 (2%)	2/50 (4%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
Overall Incidence	Total	3/150 (2%)	Mean 2%	SD 2%	Total	0/150 (0%)	Mean 0% SD 0%
.....							
#All Organs:							
Mesothelioma: Malignant							
		0/50 (0%)	1/50 (2%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
Overall Incidence	Total	2/150 (1.33%)	Mean 1.33%	SD 1.15%	Total	0/150 (0%)	Mean 0% SD 0%
.....							
#All Organs:							
Osteoma							
		0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0% SD 0%

*: Denominator is number of animals with tissues examined microscopically
 #: Denominator is number of animals necropsied

Version: Nov2014
 Contract/Lab: All Laboratories
 Species: RATS
 Strain: Wistar Han
 Length of Study: CHRONIC

Toxicology Data Management System
 Tumor Incidence for Selected Control Animal Groups
 Route: INHALATION
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		Male			Female			
#All Organs:								
Osteosarcoma								
		0/50 (0%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	Total	0/150 (0%)	Mean 0%	SD 0%
.....								
#All Organs:								
Osteosarcoma or Osteoma								
		0/50 (0%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	Total	0/150 (0%)	Mean 0%	SD 0%
.....								
*Adrenal Cortex:								
Adenoma								
		3/50 (6%)	2/50 (4%)	1/50 (2%)	0/50 (0%)	2/50 (4%)	0/50 (0%)	
Overall Incidence	Total	6/150 (4%)	Mean 4%	SD 2%	Total	2/150 (1.33%)	Mean 1.33%	SD 2.31%
.....								
*Adrenal Cortex:								
Carcinoma								
		0/50 (0%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	Total	0/150 (0%)	Mean 0%	SD 0%
.....								
*Adrenal Medulla:								
Pheochromocytoma Benign								
		1/49 (2%)	4/50 (8%)	0/50 (0%)	0/49 (0%)	1/49 (2%)	0/50 (0%)	
Overall Incidence	Total	5/149 (3.36%)	Mean 3.35%	SD 4.16%	Total	1/148 (0.68%)	Mean 0.68%	SD 1.18%
.....								
*Adrenal Medulla:								
Pheochromocytoma Complex								
		1/49 (2%)	0/50 (0%)	0/50 (0%)	0/49 (0%)	0/49 (0%)	0/50 (0%)	
Overall Incidence	Total	1/149 (0.67%)	Mean 0.68%	SD 1.18%	Total	0/148 (0%)	Mean 0%	SD 0%

*: Denominator is number of animals with tissues examined microscopically

#: Denominator is number of animals necropsied

Version: Nov2014
 Contract/Lab: All Laboratories
 Species: RATS
 Strain: Wistar Han
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Toxicology Data Management System
 Tumor Incidence for Selected Control Animal Groups
Route: INHALATION
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		Male			Female		
*Adrenal Medulla:							
Pheochromocytoma Malignant							
		0/49 (0%)	0/50 (0%)	0/50 (0%)	0/49 (0%)	1/49 (2%)	0/50 (0%)
Overall Incidence	Total	0/149 (0%)	Mean 0%	SD 0%	Total	1/148 (0.68%)	Mean 0.68% SD 1.18%
.....							
*Adrenal Medulla:							
Pheochromocytoma: Benign, Complex, Malignant, NOS							
		2/49 (4%)	4/50 (8%)	0/50 (0%)	0/49 (0%)	2/49 (4%)	0/50 (0%)
Overall Incidence	Total	6/149 (4.03%)	Mean 4.03%	SD 4%	Total	2/148 (1.35%)	Mean 1.36% SD 2.36%
.....							
#Blood Vessel:							
Hemangiosarcoma							
		0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0% SD 0%
.....							
*Bone Marrow:							
Hemangiosarcoma							
		0/50 (0%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
Overall Incidence	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	Total	0/150 (0%)	Mean 0% SD 0%
.....							
#Bone:							
Osteoma							
		0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0% SD 0%
.....							
#Bone:							
Osteosarcoma							
		0/50 (0%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
Overall Incidence	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	Total	0/150 (0%)	Mean 0% SD 0%

*: Denominator is number of animals with tissues examined microscopically
 #: Denominator is number of animals necropsied

Version: Nov2014
 Contract/Lab: All Laboratories
 Species: RATS
 Strain: Wistar Han
 Length of Study: CHRONIC

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		Male			Female			
#Bone:								
Osteosarcoma or Osteoma								
		0/50 (0%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	Total	0/150 (0%)	Mean 0%	SD 0%
.....								
#Bone:								
Sarcoma								
		0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%
.....								
*Brain:								
Glioma								
		0/50 (0%)	2/50 (4%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	2/150 (1.33%)	Mean 1.33%	SD 2.31%	Total	0/150 (0%)	Mean 0%	SD 0%
.....								
*Brain:								
Glioma Malignant								
		0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%
.....								
*Brain:								
Granular Cell Tumor Benign								
		1/50 (2%)	0/50 (0%)	0/50 (0%)	1/50 (2%)	2/50 (4%)	0/50 (0%)	
Overall Incidence	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	Total	3/150 (2%)	Mean 2%	SD 2%
.....								
*Brain:								
Granular Cell Tumor Malignant								
		0/50 (0%)	0/50 (0%)	0/50 (0%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%

*: Denominator is number of animals with tissues examined microscopically

#: Denominator is number of animals necropsied

Version: Nov2014
 Contract/Lab: All Laboratories
 Species: RATS
 Strain: Wistar Han
 Length of Study: CHRONIC

Toxicology Data Management System
 Tumor Incidence for Selected Control Animal Groups
Route: INHALATION
Vehicle: AIR

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		Male			Female			
*Brain:								
Meningioma Malignant								
		0/50 (0%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	Total	0/150 (0%)	Mean 0%	SD 0%
.....								
*Brain:								
Meningioma: Benign, Malignant, NOS								
		0/50 (0%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	Total	0/150 (0%)	Mean 0%	SD 0%
.....								
*Brain:								
Oligodendroglioma, Glioma, or Astrocytoma								
		0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%
.....								
*Clitoral/Preputial Gland:								
Carcinoma								
		0/50 (0%)	0/50 (0%)	0/49 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	0/149 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%
.....								
*Clitoral/Preputial Gland:								
Carcinoma or Adenoma								
		0/50 (0%)	0/50 (0%)	0/49 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	0/149 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%
.....								
*Heart:								
Schwannoma Benign								
		0/50 (0%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	Total	0/150 (0%)	Mean 0%	SD 0%

*: Denominator is number of animals with tissues examined microscopically
 #: Denominator is number of animals necropsied

Version: Nov2014
 Contract/Lab: All Laboratories
 Species: RATS
 Strain: Wistar Han
 Length of Study: CHRONIC

Toxicology Data Management System
 Tumor Incidence for Selected Control Animal Groups
Route: INHALATION
Vehicle: AIR

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		Male			Female			
*Heart:								
Schwannoma NOS								
		1/50 (2%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	Total	0/150 (0%)	Mean 0%	SD 0%
.....								
#Intestine Small: Duodenum:								
Fibroma								
		0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%
.....								
#Intestine Small: Duodenum:								
Leiomyosarcoma								
		0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%
.....								
#Intestine Small: Jejunum:								
Leiomyoma								
		0/50 (0%)	0/50 (0%)	0/50 (0%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%
.....								
#Intestine Small: Jejunum:								
Leiomyosarcoma								
		0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%
.....								
#Intestine Small: Site Unspecified:								
Fibroma								
		0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%

*: Denominator is number of animals with tissues examined microscopically
 #: Denominator is number of animals necropsied

Version: Nov2014
 Contract/Lab: All Laboratories
 Species: RATS
 Strain: Wistar Han
 Length of Study: CHRONIC

Toxicology Data Management System
 Tumor Incidence for Selected Control Animal Groups
Route: INHALATION
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		Male			Female		
#Intestine Small: Site Unspecified:							
Leiomyoma							
		0/50 (0%)	0/50 (0%)	0/50 (0%)	1/50 (2%)	0/50 (0%)	0/50 (0%)
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total 1/150 (0.67%)	Mean 0.67%	SD 1.15%
.....							
#Intestine Small: Site Unspecified:							
Leiomyosarcoma							
		0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total 0/150 (0%)	Mean 0%	SD 0%
.....							
*Islets, Pancreatic:							
Adenoma							
		0/50 (0%)	0/50 (0%)	5/50 (10%)	0/50 (0%)	1/49 (2%)	0/50 (0%)
Overall Incidence	Total	5/150 (3.33%)	Mean 3.33%	SD 5.77%	Total 1/149 (0.67%)	Mean 0.68%	SD 1.18%
.....							
*Islets, Pancreatic:							
Carcinoma							
		0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/49 (0%)	0/50 (0%)
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total 0/149 (0%)	Mean 0%	SD 0%
.....							
*Islets, Pancreatic:							
Carcinoma or Adenoma							
		0/50 (0%)	0/50 (0%)	5/50 (10%)	0/50 (0%)	1/49 (2%)	0/50 (0%)
Overall Incidence	Total	5/150 (3.33%)	Mean 3.33%	SD 5.77%	Total 1/149 (0.67%)	Mean 0.68%	SD 1.18%
.....							
*Kidney: Pelvis and Transitional Epithelium:							
Papilloma							
		0/50 (0%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
Overall Incidence	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	Total 0/150 (0%)	Mean 0%	SD 0%

*: Denominator is number of animals with tissues examined microscopically
 #: Denominator is number of animals necropsied

Version: Nov2014
 Contract/Lab: All Laboratories
 Species: RATS
 Strain: Wistar Han
 Length of Study: CHRONIC

Toxicology Data Management System
 Tumor Incidence for Selected Control Animal Groups
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		Male			Female		
*Kidney: Renal Tubule: Adenoma							
		0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	1/50 (2%)	0/50 (0%)
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	1/150 (0.67%)	Mean 0.67% SD 1.15%
.....							
*Kidney: Renal Tubule: Carcinoma							
		0/50 (0%)	0/50 (0%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
Overall Incidence	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	Total	0/150 (0%)	Mean 0% SD 0%
.....							
*Kidney: Renal Tubule: Carcinoma or Adenoma							
		0/50 (0%)	0/50 (0%)	1/50 (2%)	0/50 (0%)	1/50 (2%)	0/50 (0%)
Overall Incidence	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	Total	1/150 (0.67%)	Mean 0.67% SD 1.15%
.....							
*Kidney: Renal Tubule: Lipoma							
		0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0% SD 0%
.....							
*Kidney: Renal Tubule: Liposarcoma							
		0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0% SD 0%
.....							
*Liver: Hepatocellular Adenoma							
		0/50 (0%)	0/50 (0%)	1/50 (2%)	1/50 (2%)	0/50 (0%)	0/50 (0%)
Overall Incidence	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	Total	1/150 (0.67%)	Mean 0.67% SD 1.15%

*: Denominator is number of animals with tissues examined microscopically
 #: Denominator is number of animals necropsied

Version: Nov2014
 Contract/Lab: All Laboratories
 Species: RATS
 Strain: Wistar Han
 Length of Study: CHRONIC

Toxicology Data Management System
 Tumor Incidence for Selected Control Animal Groups
Route: INHALATION
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		Male				Female			
*Liver:									
Hepatocellular Carcinoma or Hepatocellular Adenoma									
		0/50 (0%)	0/50 (0%)	1/50 (2%)		1/50 (2%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	
.....									
*Liver:									
Hepatocellular Carcinoma, Hepatocellular Adenoma, or Hepatoblastoma									
		0/50 (0%)	0/50 (0%)	1/50 (2%)		1/50 (2%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	
.....									
*Lung:									
Alveolar/Bronchiolar Adenoma									
		3/50 (6%)	1/50 (2%)	0/50 (0%)		0/50 (0%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	4/150 (2.67%)	Mean 2.67%	SD 3.06%	Total	0/150 (0%)	Mean 0%	SD 0%	
.....									
*Lung:									
Alveolar/Bronchiolar Carcinoma or Alveolar/Bronchiolar Adenoma									
		3/50 (6%)	1/50 (2%)	0/50 (0%)		0/50 (0%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	4/150 (2.67%)	Mean 2.67%	SD 3.06%	Total	0/150 (0%)	Mean 0%	SD 0%	
.....									
#Lymph Node:									
Hemangioma									
		0/50 (0%)	0/50 (0%)	1/50 (2%)		0/50 (0%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	Total	0/150 (0%)	Mean 0%	SD 0%	
.....									
#Lymph Node, Mesenteric:									
Hemangioma									
		1/50 (2%)	0/50 (0%)	0/50 (0%)		0/50 (0%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	Total	0/150 (0%)	Mean 0%	SD 0%	

*: Denominator is number of animals with tissues examined microscopically

#: Denominator is number of animals necropsied

Version: Nov2014
 Contract/Lab: All Laboratories
 Species: RATS
 Strain: Wistar Han
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Toxicology Data Management System
 Tumor Incidence for Selected Control Animal Groups
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		Male			Female			
#Lymph Node, Mesenteric:								
Hemangiosarcoma								
		2/50 (4%)	3/50 (6%)	0/50 (0%)	0/50 (0%)	1/50 (2%)	0/50 (0%)	
Overall Incidence	Total	5/150 (3.33%)	Mean 3.33%	SD 3.06%	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%
.....								
#Mammary Gland:								
Adenoma								
		0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	2/50 (4%)	4/50 (8%)	
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	6/150 (4%)	Mean 4%	SD 4%
.....								
#Mammary Gland:								
Carcinoma								
		0/50 (0%)	0/50 (0%)	0/50 (0%)	5/50 (10%)	4/50 (8%)	4/50 (8%)	
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	13/150 (8.67%)	Mean 8.67%	SD 1.15%
.....								
#Mammary Gland:								
Carcinoma or Adenoma								
		0/50 (0%)	0/50 (0%)	0/50 (0%)	5/50 (10%)	6/50 (12%)	8/50 (16%)	
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	19/150 (12.67%)	Mean 12.67%	SD 3.06%
.....								
#Mammary Gland:								
Fibroadenoma								
		0/50 (0%)	0/50 (0%)	0/50 (0%)	7/50 (14%)	9/50 (18%)	2/50 (4%)	
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	18/150 (12%)	Mean 12%	SD 7.21%
.....								
#Mammary Gland:								
Fibroma, Fibroadenoma or Adenoma								
		0/50 (0%)	0/50 (0%)	0/50 (0%)	7/50 (14%)	11/50 (22%)	6/50 (12%)	
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	24/150 (16%)	Mean 16%	SD 5.29%

*: Denominator is number of animals with tissues examined microscopically
 #: Denominator is number of animals necropsied

Version: Nov2014
 Contract/Lab: All Laboratories
 Species: RATS
 Strain: Wistar Han
 Length of Study: CHRONIC

Toxicology Data Management System
 Tumor Incidence for Selected Control Animal Groups
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		Male				Female			
#Mammary Gland:									
Fibroma, Fibroadenoma, Carcinoma, or Adenoma									
		0/50 (0%)	0/50 (0%)	0/50 (0%)		10/50 (20%)	13/50 (26%)	9/50 (18%)	
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	32/150 (21.33%)	Mean 21.33%	SD 4.16%	
.....									
#Mesentery:									
Hemangiosarcoma									
		0/50 (0%)	0/50 (0%)	0/50 (0%)		0/50 (0%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%	
.....									
#Mesentery:									
Lipoma									
		0/50 (0%)	0/50 (0%)	0/50 (0%)		0/50 (0%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%	
.....									
#Mesentery:									
Schwannoma Malignant									
		0/50 (0%)	0/50 (0%)	0/50 (0%)		0/50 (0%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%	
.....									
*Nose:									
Chondroma									
		1/50 (2%)	0/50 (0%)	0/50 (0%)		0/50 (0%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	Total	0/150 (0%)	Mean 0%	SD 0%	
.....									
*Nose:									
Olfactory Neuroblastoma									
		0/50 (0%)	0/50 (0%)	0/50 (0%)		0/50 (0%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%	

*: Denominator is number of animals with tissues examined microscopically
 #: Denominator is number of animals necropsied

Version: Nov2014
 Contract/Lab: All Laboratories
 Species: RATS
 Strain: Wistar Han
 Length of Study: CHRONIC

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		Male				Female			
#Oral Cavity (Oral Mucosa, Tongue, Pharynx, Tooth, Gingiva): Squamous Cell Carcinoma									
		0/50 (0%)	0/50 (0%)	0/50 (0%)		0/50 (0%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%	
.....									
#Oral Cavity (Oral Mucosa, Tongue, Pharynx, Tooth, Gingiva): Squamous Cell Carcinoma, Papilloma Squamous, or Papilloma									
		0/50 (0%)	0/50 (0%)	0/50 (0%)		0/50 (0%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%	
.....									
#Oral Mucosa: Squamous Cell Carcinoma									
		0/50 (0%)	0/50 (0%)	0/50 (0%)		0/50 (0%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%	
.....									
*Ovary: Adenoma									
						2/50 (4%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total				Total	2/150 (1.33%)	Mean 1.33%	SD 2.31%	
.....									
*Ovary: Cystadenoma									
						1/50 (2%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total				Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	
.....									
*Ovary: Granulosa Cell Tumor Benign									
						0/50 (0%)	1/50 (2%)	0/50 (0%)	
Overall Incidence	Total				Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	

*: Denominator is number of animals with tissues examined microscopically
 #: Denominator is number of animals necropsied

Version: Nov2014
 Contract/Lab: All Laboratories
 Species: RATS
 Strain: Wistar Han
 Length of Study: CHRONIC

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 Tumor Incidence for Selected Control Animal Groups
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		Male				Female			
*Ovary:									
Granulosa Cell Tumor Malignant									
			0/50	(0%)		0/50	(0%)	1/50	(2%)
Overall Incidence		Total	1/150	(0.67%)		Mean	0.67%	SD	1.15%
.....									
*Ovary:									
Granulosa Cell Tumor: Benign, Malignant, NOS									
			0/50	(0%)		1/50	(2%)	1/50	(2%)
Overall Incidence		Total	2/150	(1.33%)		Mean	1.33%	SD	1.15%
.....									
*Ovary:									
Sex Cord Stromal Tumor, Benign									
			0/50	(0%)		0/50	(0%)	0/50	(0%)
Overall Incidence		Total	0/150	(0%)		Mean	0%	SD	0%
.....									
*Ovary:									
Tubulostromal Adenoma									
			2/50	(4%)		0/50	(0%)	0/50	(0%)
Overall Incidence		Total	2/150	(1.33%)		Mean	1.33%	SD	2.31%
.....									
*Pancreas:									
Adenoma									
			0/50	(0%)	1/50	(2%)	1/50	(2%)	
Overall Incidence	Total	2/150	(1.33%)	Mean	1.33%	SD	1.15%	Total	0/50
									0/49
									(0%)
									Mean
									0%
									SD
									0%
.....									
*Pancreas:									
Carcinoma or Adenoma									
			0/50	(0%)	1/50	(2%)	1/50	(2%)	
Overall Incidence	Total	2/150	(1.33%)	Mean	1.33%	SD	1.15%	Total	0/50
									0/49
									(0%)
									Mean
									0%
									SD
									0%
.....									

*: Denominator is number of animals with tissues examined microscopically
 #: Denominator is number of animals necropsied

Version: Nov2014
 Contract/Lab: All Laboratories
 Species: RATS
 Strain: Wistar Han
 Length of Study: CHRONIC

Toxicology Data Management System
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Route: INHALATION
Vehicle: AIR

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		Male			Female			
*Parathyroid Gland:								
Adenoma								
		0/44 (0%)	0/43 (0%)	0/39 (0%)	0/39 (0%)	0/47 (0%)	1/42 (2%)	
Overall Incidence	Total	0/126 (0%)	Mean 0%	SD 0%	Total	1/128 (0.78%)	Mean 0.79%	SD 1.37%
.....								
*Pituitary Gland: Pars Distalis or Unspecified Site:								
Adenoma								
		14/50 (28%)	16/49 (33%)	14/50 (28%)	19/50 (38%)	35/50 (70%)	34/50 (68%)	
Overall Incidence	Total	44/149 (29.53%)	Mean 29.55%	SD 2.69%	Total	88/150 (58.67%)	Mean 58.67%	SD 17.93%
.....								
*Pituitary Gland: Pars Distalis or Unspecified Site:								
Carcinoma								
		0/50 (0%)	0/49 (0%)	0/50 (0%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	0/149 (0%)	Mean 0%	SD 0%	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%
.....								
*Pituitary Gland: Pars Distalis or Unspecified Site:								
Carcinoma or Adenoma								
		14/50 (28%)	16/49 (33%)	14/50 (28%)	20/50 (40%)	35/50 (70%)	34/50 (68%)	
Overall Incidence	Total	44/149 (29.53%)	Mean 29.55%	SD 2.69%	Total	89/150 (59.33%)	Mean 59.33%	SD 16.77%
.....								
*Pituitary Gland: Pars Intermedia:								
Adenoma								
		1/50 (2%)	2/49 (4%)	1/50 (2%)	0/50 (0%)	1/50 (2%)	1/50 (2%)	
Overall Incidence	Total	4/149 (2.68%)	Mean 2.69%	SD 1.2%	Total	2/150 (1.33%)	Mean 1.33%	SD 1.15%
.....								
*Pituitary Gland: Pars Intermedia:								
Carcinoma or Adenoma								
		1/50 (2%)	2/49 (4%)	1/50 (2%)	0/50 (0%)	1/50 (2%)	1/50 (2%)	
Overall Incidence	Total	4/149 (2.68%)	Mean 2.69%	SD 1.2%	Total	2/150 (1.33%)	Mean 1.33%	SD 1.15%

*: Denominator is number of animals with tissues examined microscopically

#: Denominator is number of animals necropsied

Version: Nov2014
 Contract/Lab: All Laboratories
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Toxicology Data Management System
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		Male				Female			
*Prostate:									
Adenoma									
		1/50	(2%)	1/50	(2%)	0/50	(0%)		
Overall Incidence	Total	2/150 (1.33%)		Mean 1.33%		SD 1.15%			
.....									
*Prostate:									
Carcinoma or Adenoma									
		1/50	(2%)	1/50	(2%)	0/50	(0%)		
Overall Incidence	Total	2/150 (1.33%)		Mean 1.33%		SD 1.15%			
.....									
*Salivary Glands:									
Adenoma									
		0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	0/150 (0%)		Mean 0%		SD 0%		Total	0/150 (0%)
								0/50	(0%)
								Mean	0%
								SD	0%
.....									
*Salivary Glands:									
Carcinoma									
		0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	0/150 (0%)		Mean 0%		SD 0%		Total	0/150 (0%)
								0/50	(0%)
								Mean	0%
								SD	0%
.....									
*Salivary Glands:									
Carcinoma or Adenoma									
		0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	0/150 (0%)		Mean 0%		SD 0%		Total	0/150 (0%)
								0/50	(0%)
								Mean	0%
								SD	0%
.....									
*Salivary Glands:									
Myoepithelioma									
		1/50	(2%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	1/150 (0.67%)		Mean 0.67%		SD 1.15%		Total	0/150 (0%)
								0/50	(0%)
								Mean	0%
								SD	0%

*: Denominator is number of animals with tissues examined microscopically
 #: Denominator is number of animals necropsied

Version: Nov2014
 Contract/Lab: All Laboratories
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 Strain: Wistar Han
 Length of Study: CHRONIC

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		Male			Female			
*Salivary Glands:								
Schwannoma Malignant								
		0/50 (0%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	Total	0/150 (0%)	Mean 0%	SD 0%
.....								
#Seminal Vesicle:								
Adenoma								
		0/50 (0%)	1/50 (2%)	0/50 (0%)				
Overall Incidence	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%				
.....								
#Skeletal Muscle:								
Hemangiosarcoma								
		0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%
.....								
#Skeletal Muscle:								
Sarcoma								
		0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%
.....								
#Skin:								
Basal Cell Adenoma								
		0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%
.....								
#Skin:								
Basal Cell Adenoma or Basosquamous Tumor Benign								
		0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%

*: Denominator is number of animals with tissues examined microscopically

#: Denominator is number of animals necropsied

Version: Nov2014
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		Male				Female					
#Skin:											
Basal Cell Adenoma, Basosquamous Tumor Benign, or Trichoepithelioma											
		0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	0/150	(0%)	Mean 0%	SD 0%	Total	0/150	(0%)	Mean 0%	SD 0%	
.....											
#Skin:											
Basal Cell Carcinoma											
		0/50	(0%)	1/50	(2%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	1/150	(0.67%)	Mean 0.67%	SD 1.15%	Total	0/150	(0%)	Mean 0%	SD 0%	
.....											
#Skin:											
Basal Cell Carcinoma or Basosquamous Tumor (malignant or NOS)											
		0/50	(0%)	1/50	(2%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	1/150	(0.67%)	Mean 0.67%	SD 1.15%	Total	0/150	(0%)	Mean 0%	SD 0%	
.....											
#Skin:											
Basal Cell Carcinoma, Basal Cell Adenoma, Basosquamous Tumor (benign, malignant or NOS), or Trichoepithelioma											
		0/50	(0%)	1/50	(2%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	1/150	(0.67%)	Mean 0.67%	SD 1.15%	Total	0/150	(0%)	Mean 0%	SD 0%	
.....											
#Skin:											
Basal or Sq. Cell Carcinoma, Carcinoma, Basosq. Tumor (M or B), Basal Cell Adenoma, Adenoma, Papilloma, Sq Papilloma, Keratoacanthoma, Trichoepithelioma											
		1/50	(2%)	2/50	(4%)	1/50	(2%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	4/150	(2.67%)	Mean 2.67%	SD 1.15%	Total	0/150	(0%)	Mean 0%	SD 0%	
.....											
#Skin:											
Fibroma											
		2/50	(4%)	1/50	(2%)	1/50	(2%)	2/50	(4%)	0/50	(0%)
Overall Incidence	Total	4/150	(2.67%)	Mean 2.67%	SD 1.15%	Total	2/150	(1.33%)	Mean 1.33%	SD 2.31%	

*: Denominator is number of animals with tissues examined microscopically

#: Denominator is number of animals necropsied

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	Male					Female				
#Skin:										
Fibroma, Fibrosarcoma, Sarcoma, Myxoma, Myxosarcoma, or Fibrous Histiocytoma										
		2/50 (4%)	2/50 (4%)	1/50 (2%)		2/50 (4%)	0/50 (0%)	0/50 (0%)		
Overall Incidence	Total	5/150 (3.33%)	Mean 3.33%	SD 1.15%	Total	2/150 (1.33%)	Mean 1.33%	SD 2.31%		
.....										
#Skin:										
Fibrosarcoma										
		0/50 (0%)	1/50 (2%)	0/50 (0%)		0/50 (0%)	0/50 (0%)	0/50 (0%)		
Overall Incidence	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	Total	0/150 (0%)	Mean 0%	SD 0%		
.....										
#Skin:										
Fibrosarcoma, Sarcoma, Myxosarcoma, or Fibrous Histiocytoma										
		0/50 (0%)	1/50 (2%)	0/50 (0%)		0/50 (0%)	0/50 (0%)	0/50 (0%)		
Overall Incidence	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	Total	0/150 (0%)	Mean 0%	SD 0%		
.....										
#Skin:										
Hamartoma										
		0/50 (0%)	0/50 (0%)	0/50 (0%)		0/50 (0%)	0/50 (0%)	0/50 (0%)		
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%		
.....										
#Skin:										
Hemangiosarcoma										
		0/50 (0%)	0/50 (0%)	0/50 (0%)		0/50 (0%)	0/50 (0%)	0/50 (0%)		
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%		
.....										
#Skin:										
Keratoacanthoma										
		1/50 (2%)	1/50 (2%)	1/50 (2%)		0/50 (0%)	0/50 (0%)	0/50 (0%)		
Overall Incidence	Total	3/150 (2%)	Mean 2%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%		

*: Denominator is number of animals with tissues examined microscopically
 #: Denominator is number of animals necropsied

Version: Nov2014
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Toxicology Data Management System
 Tumor Incidence for Selected Control Animal Groups
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		Male			Female			
#Skin:								
Lipoma								
		0/50 (0%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	Total	0/150 (0%)	Mean 0%	SD 0%
.....								
#Skin:								
Liposarcoma								
		0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	1/50 (2%)	0/50 (0%)	
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%
.....								
#Skin:								
Neurofibrosarcoma or Schwannoma (malignant or NOS)								
		0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%
.....								
#Skin:								
Neurofibrosarcoma, Neurofibroma, or Schwannoma (benign, malignant or NOS)								
		0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%
.....								
#Skin:								
Schwannoma Malignant								
		0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%
.....								
#Skin:								
Squamous Cell Carcinoma								
		0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%

*: Denominator is number of animals with tissues examined microscopically
 #: Denominator is number of animals necropsied

Version: Nov2014
 Contract/Lab: All Laboratories
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		Male			Female			
#Skin:								
Squamous Cell Carcinoma, Basal Cell Carcinoma, Basosquamous Tumor (malignant or NOS), or Carcinoma								
Overall Incidence	Total	0/50 (0%) 1/150 (0.67%)	1/50 (2%) Mean 0.67%	0/50 (0%) SD 1.15%	Total	0/50 (0%) 0/150 (0%)	0/50 (0%) Mean 0%	0/50 (0%) SD 0%
#Skin:								
Squamous Cell Papilloma								
Overall Incidence	Total	0/50 (0%) 0/150 (0%)	0/50 (0%) Mean 0%	0/50 (0%) SD 0%	Total	0/50 (0%) 0/150 (0%)	0/50 (0%) Mean 0%	0/50 (0%) SD 0%
#Skin:								
Squamous Cell Papilloma or Papilloma								
Overall Incidence	Total	0/50 (0%) 0/150 (0%)	0/50 (0%) Mean 0%	0/50 (0%) SD 0%	Total	0/50 (0%) 0/150 (0%)	0/50 (0%) Mean 0%	0/50 (0%) SD 0%
#Skin:								
Squamous Cell Papilloma, Papilloma, Squamous Cell Carcinoma or Keratoacanthoma								
Overall Incidence	Total	1/50 (2%) 3/150 (2%)	1/50 (2%) Mean 2%	1/50 (2%) SD 0%	Total	0/50 (0%) 0/150 (0%)	0/50 (0%) Mean 0%	0/50 (0%) SD 0%
#Skin:								
Squamous Cell Papilloma, Papilloma, or Keratoacanthoma								
Overall Incidence	Total	1/50 (2%) 3/150 (2%)	1/50 (2%) Mean 2%	1/50 (2%) SD 0%	Total	0/50 (0%) 0/150 (0%)	0/50 (0%) Mean 0%	0/50 (0%) SD 0%
#Skin: Sebaceous Gland:								
Adenoma								
Overall Incidence	Total	0/50 (0%) 1/150 (0.67%)	0/50 (0%) Mean 0.67%	1/50 (2%) SD 1.15%	Total	0/50 (0%) 0/150 (0%)	0/50 (0%) Mean 0%	0/50 (0%) SD 0%

*: Denominator is number of animals with tissues examined microscopically
 #: Denominator is number of animals necropsied

Version: Nov2014
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		Male			Female			
#Skin, Sebaceous Gland:								
Carcinoma or Adenoma								
		0/50 (0%)	0/50 (0%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	Total	0/150 (0%)	Mean 0%	SD 0%
.....								
*Spleen:								
Hemangiosarcoma								
		0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%
.....								
#Stomach, Forestomach:								
Fibrosarcoma								
		0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%
.....								
#Stomach, Forestomach:								
Leiomyoma								
		0/50 (0%)	1/50 (2%)	0/50 (0%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%
.....								
#Stomach, Forestomach:								
Leiomyosarcoma								
		0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	1/50 (2%)	0/50 (0%)	
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%
.....								
#Stomach, Forestomach:								
Sarcoma								
		0/50 (0%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	Total	0/150 (0%)	Mean 0%	SD 0%

*: Denominator is number of animals with tissues examined microscopically
 #: Denominator is number of animals necropsied

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		Male				Female					
#Stomach, Forestomach:											
Squamous Cell Carcinoma											
		0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	0/150	(0%)	Mean 0%	SD 0%	Total	0/150	(0%)	Mean 0%	SD 0%	
.....											
#Stomach, Forestomach:											
Squamous Cell Carcinoma or Papilloma Squamous											
		0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	0/150	(0%)	Mean 0%	SD 0%	Total	0/150	(0%)	Mean 0%	SD 0%	
.....											
#Stomach, Forestomach:											
Squamous Cell Papilloma											
		0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	0/150	(0%)	Mean 0%	SD 0%	Total	0/150	(0%)	Mean 0%	SD 0%	
.....											
#Stomach, Glandular:											
Fibrosarcoma											
		0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	0/150	(0%)	Mean 0%	SD 0%	Total	0/150	(0%)	Mean 0%	SD 0%	
.....											
#Stomach, Glandular:											
Leiomyosarcoma											
		0/50	(0%)	0/50	(0%)	0/50	(0%)	1/50	(2%)	0/50	(0%)
Overall Incidence	Total	0/150	(0%)	Mean 0%	SD 0%	Total	1/150	(0.67%)	Mean 0.67%	SD 1.15%	
.....											
#Stomach, Glandular:											
Sarcoma											
		0/50	(0%)	1/50	(2%)	0/50	(0%)	0/50	(0%)	0/50	(0%)
Overall Incidence	Total	1/150	(0.67%)	Mean 0.67%	SD 1.15%	Total	0/150	(0%)	Mean 0%	SD 0%	

*: Denominator is number of animals with tissues examined microscopically
 #: Denominator is number of animals necropsied

Version: Nov2014
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		Male			Female		
*Testes:							
Adenoma							
		6/50 (12%)	2/50 (4%)	0/50 (0%)			
Overall Incidence	Total	8/150 (5.33%)	Mean 5.33%	SD 6.11%			
.....							
*Testes:							
Hemangiosarcoma							
		1/50 (2%)	0/50 (0%)	0/50 (0%)			
Overall Incidence	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%			
.....							
*Thymus:							
Sarcoma							
		0/41 (0%)	0/40 (0%)	0/48 (0%)	0/46 (0%)	0/48 (0%)	0/48 (0%)
Overall Incidence	Total	0/129 (0%)	Mean 0%	SD 0%	Total 0/142 (0%)	Mean 0%	SD 0%
.....							
*Thymus:							
Thymoma Benign							
		3/41 (7%)	1/40 (3%)	3/48 (6%)	6/46 (13%)	5/48 (10%)	8/48 (17%)
Overall Incidence	Total	7/129 (5.43%)	Mean 5.36%	SD 2.53%	Total 19/142 (13.38%)	Mean 13.38%	SD 3.14%
.....							
*Thymus:							
Thymoma: Benign, Malignant, NOS							
		3/41 (7%)	1/40 (3%)	3/48 (6%)	6/46 (13%)	5/48 (10%)	8/48 (17%)
Overall Incidence	Total	7/129 (5.43%)	Mean 5.36%	SD 2.53%	Total 19/142 (13.38%)	Mean 13.38%	SD 3.14%
.....							
*Thyroid Gland:							
Carcinoma							
		0/50 (0%)	0/50 (0%)	0/50 (0%)	1/50 (2%)	0/50 (0%)	0/49 (0%)
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total 1/149 (0.67%)	Mean 0.67%	SD 1.15%

*: Denominator is number of animals with tissues examined microscopically
 #: Denominator is number of animals necropsied

Version: Nov2014
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		Male			Female		
*Thyroid Gland: C-Cell: Adenoma							
		5/50 (10%)	7/50 (14%)	3/50 (6%)	4/50 (8%)	3/50 (6%)	7/49 (14%)
Overall Incidence	Total	15/150 (10%)	Mean 10%	SD 4%	Total	14/149 (9.4%)	Mean 9.43% SD 4.32%
.....							
*Thyroid Gland: C-Cell: Carcinoma							
		1/50 (2%)	0/50 (0%)	0/50 (0%)	1/50 (2%)	0/50 (0%)	0/49 (0%)
Overall Incidence	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	Total	1/149 (0.67%)	Mean 0.67% SD 1.15%
.....							
*Thyroid Gland: C-Cell: Carcinoma or Adenoma							
		6/50 (12%)	7/50 (14%)	3/50 (6%)	5/50 (10%)	3/50 (6%)	7/49 (14%)
Overall Incidence	Total	16/150 (10.67%)	Mean 10.67%	SD 4.16%	Total	15/149 (10.07%)	Mean 10.1% SD 4.14%
.....							
*Thyroid Gland: Follicular Cell: Adenoma							
		0/50 (0%)	1/50 (2%)	0/50 (0%)	1/50 (2%)	1/50 (2%)	0/49 (0%)
Overall Incidence	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	Total	2/149 (1.34%)	Mean 1.33% SD 1.15%
.....							
*Thyroid Gland: Follicular Cell: Carcinoma							
		0/50 (0%)	0/50 (0%)	0/50 (0%)	1/50 (2%)	1/50 (2%)	1/49 (2%)
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	3/149 (2.01%)	Mean 2.01% SD 0.02%
.....							
*Thyroid Gland: Follicular Cell: Carcinoma or Adenoma							
		0/50 (0%)	1/50 (2%)	0/50 (0%)	2/50 (4%)	2/50 (4%)	1/49 (2%)
Overall Incidence	Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	Total	5/149 (3.36%)	Mean 3.35% SD 1.13%

*: Denominator is number of animals with tissues examined microscopically

#: Denominator is number of animals necropsied

Version: Nov2014
 Contract/Lab: All Laboratories
 Species: RATS
 Strain: Wistar Han
 Length of Study: CHRONIC

Toxicology Data Management System
 Tumor Incidence for Selected Control Animal Groups
 Route: INHALATION
 Vehicle: AIR

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		Male				Female			
*Urinary Bladder: Carcinoma or Papilloma									
		0/50 (0%)	0/50 (0%)	0/50 (0%)		0/50 (0%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%	
.....									
*Urinary Bladder: Papilloma									
		0/50 (0%)	0/50 (0%)	0/50 (0%)		0/50 (0%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total	0/150 (0%)	Mean 0%	SD 0%	Total	0/150 (0%)	Mean 0%	SD 0%	
.....									
#Uterus: Adenoma									
						0/50 (0%)	0/50 (0%)	1/50 (2%)	
Overall Incidence	Total				Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	
.....									
#Uterus: Carcinoma									
						3/50 (6%)	1/50 (2%)	1/50 (2%)	
Overall Incidence	Total				Total	5/150 (3.33%)	Mean 3.33%	SD 2.31%	
.....									
#Uterus: Granular Cell Tumor Benign									
						0/50 (0%)	0/50 (0%)	1/50 (2%)	
Overall Incidence	Total				Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	
.....									
#Uterus: Hemangiosarcoma									
						1/50 (2%)	0/50 (0%)	0/50 (0%)	
Overall Incidence	Total				Total	1/150 (0.67%)	Mean 0.67%	SD 1.15%	

*: Denominator is number of animals with tissues examined microscopically

#: Denominator is number of animals necropsied

Version: Nov2014
 Contract/Lab: All Laboratories
 Species: RATS
 Strain: Wistar Han
 Length of Study: CHRONIC

Toxicology Data Management System
 Tumor Incidence for Selected Control Animal Groups
 Route: INHALATION
 Vehicle: AIR

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	Male	Female
#Uterus: Leiomyosarcoma		
Overall Incidence	Total 1/50 (2%)	0/50 (0%) Mean 0.67% SD 1.15%
#Uterus: Malignant Mixed Mullerian Tumor		
Overall Incidence	Total 0/50 (0%)	0/50 (0%) Mean 0% SD 0%
#Uterus: Polyp Stromal		
Overall Incidence	Total 2/50 (4%)	5/50 (10%) Mean 8.67% SD 4.16%
#Uterus: Sarcoma Stromal		
Overall Incidence	Total 1/50 (2%)	2/50 (4%) Mean 2.67% SD 1.15%
#Uterus: Sarcoma Stromal or Polyp Stromal		
Overall Incidence	Total 3/50 (6%)	6/50 (12%) Mean 10.67% SD 4.16%
#Uterus: Schwannoma Malignant		
Overall Incidence	Total 0/50 (0%)	0/50 (0%) Mean 1.33% SD 2.31%

*: Denominator is number of animals with tissues examined microscopically

#: Denominator is number of animals necropsied

Version: Nov2014
 Contract/Lab: All Laboratories
 Species: RATS
 Strain: Wistar Han
 Length of Study: CHRONIC

Toxicology Data Management System
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		Male			Female		
#Uterus:							
Squamous Cell Papilloma							
			0/50 (0%)		1/50 (2%)	0/50 (0%)	
Overall Incidence		Total	1/150 (0.67%)		Mean 0.67%	SD 1.15%	
.....							
#Vagina:							
Fibrosarcoma							
			0/50 (0%)		0/50 (0%)	1/50 (2%)	
Overall Incidence		Total	1/150 (0.67%)		Mean 0.67%	SD 1.15%	
.....							
#Vagina:							
Leiomyoma							
			0/50 (0%)		0/50 (0%)	0/50 (0%)	
Overall Incidence		Total	0/150 (0%)		Mean 0%	SD 0%	
.....							
#Vagina:							
Polyp							
			0/50 (0%)		0/50 (0%)	0/50 (0%)	
Overall Incidence		Total	0/150 (0%)		Mean 0%	SD 0%	
.....							
#Zymbal's Gland:							
Carcinoma							
		0/50 (0%)	2/50 (4%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
Overall Incidence	Total	3/150 (2%)	Mean 2%	SD 2%	Total	0/150 (0%)	Mean 0%
.....							
#Zymbal's Gland:							
Carcinoma or Adenoma							
		0/50 (0%)	2/50 (4%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
Overall Incidence	Total	3/150 (2%)	Mean 2%	SD 2%	Total	0/150 (0%)	Mean 0%

*: Denominator is number of animals with tissues examined microscopically

#: Denominator is number of animals necropsied